The Partitive Concept versus Linguistic Partitives: From Abstract Concepts to Evidentiality in the Uralic Languages[1]
Anne Tamm

1. Introduction

Partitive is among the most theory-dependent terms for a case in modern linguistics. This paper targets some of the confusing issues on the basis of the empirical material on various examples of partitives from the Uralic languages. The main aim is to reduce somewhat the uninformed cross-talk between linguists of different traditions and help them see where their coverage of the term "partitive" converges or diverges. The other aim of the article is to gain insights and to formulate hypotheses that can be experimentally tested and the results of which can be measured. Here are the main points of this paper.

(1)
    a. I propose a distinction between "Linguistic Partitives" and "Partitive Concepts" in describing the partitive phenomena. Distinguishing the two helps to compare the mismatches between the partitive form and the part-whole meaning across the individual languages.
    b. The **Partitive Concept** is an abstract concept that serves for comparing the semantics of grammatical forms to the semantics of "part-of-N".
    c. A **Linguistic Partitive** is a grammatical form that is related to the meaning of the Partitive Concept. In several Uralic languages, the partitive cases have developed their specific semantics and pragmatics in each Uralic language where the case appears.
    d. I divide the Linguistic Partitive into functional and structural categories, depending on the semantics of the partitive in the structure of the language at hand.
    e. I follow the works that divide the Partitive Concept in two metonymically related subconcepts: the partitive and the pseudopartitive.

The term "partitive" is most frequently applied to a type of Indo-European genitives (Koptjevskaja-Tamm 2001: 525). Other aspects of the forms referred to as the partitive have enjoyed considerable attention in theoretical linguistic literature due to the special thematic relationship that the partitive encodes between the predicate and the object (Krifka 1992). Hoeksema (1996) contains several formal and generative papers on the partitive. De Hoop (1996) gives an influential account in terms of quantifiers, and de Hoop (1998) offers an extensive overview of the theoretical approaches to the phenomenon and a thorough bibliography. In the interface between cognition and language, Jackendoff (1991) relates the cognition and theoretical linguistics with the concept of partitivity and parts, and interpretational peculiarities of some partitive phenomena via discourse and pragmatics. In psycholinguitics, Reed (1991) discusses several constraints of the partitive constructions, arguing that these constraints stem from the discourse requirements.

Some of these influential typological, theoretical and cognitive accounts mention a lesser known, but nevertheless theoretically and typologically intriguing phenomenon: a dedicated partitive case. The Uralic languages, more specifically, the Finnic languages is a whole group of related languages where there is a morphological partitve case that marks objects, subjects, predicatives, other complements, and even measure adjuncts. It combines with various non-finites (nominalizations) that vary in their degree of finiteness. The combinations of nonfinites and the partitive case formant are either transparent or opaque, and are combined productively or have completely grammaticalized as intersubjective markers. Finnic, especially several recently analysed Estonian partitive case phenomena are an interesting object of study between form, meaning, and cognition in general. This is partly so because of its development into distinct *functional* categories. More specifically, there is an abundance of the semantic developments of the partitive marker, including intersubjective markers the understanding of which requires Theory of Mind. Partly, the partitive has developed a wide variety of desemanticised uses and is a *structural* case because it behaves as a formal, semantically opaque complement case.

There are many questions this contribution wishes to contribute to. What is the partitive? How does it distinguish itself from other similar cases, such as the accusative, or the source cases? How should it be described? Is there a uniform partitive concept? How should we map the partitive meanings to the partitive forms across languages? What is the use of the partitive in communication? A wider perspective on partitive and partitive-like concepts in the Uralic languages provides valuable material for further studies into the relationships between language and the cognition of concepts. Up until now, the description has been domain-specific and fragmented for the specific purposes of the particular studies. This article wishes to give a representative overview of the challenging properties of the partitives and the related cases in the Uralic.

The partitive is by now a well-studied grammatical phenomenon in Uralic linguistics. The previous sources on the partitive comprise grammar books of Finnic languages and general collections on Uralic languages such as Abondolo (1998), or particular descriptive or diachronic studies on the partitive case in separate Finnic languages, such as Tveite (2004) on Livonian, Ritter (1989) on Veps, or Denison (1957) on Finnish. There are informative works on the semantic or syntactic conditions of the partitive case in Finnic languages, such as aspect, indefiniteness, or grammatical relations (e.g., Heinämäki 1984, Rajandi and Metslang 1979, Metslang 2001, 1994, Hiietam 2003). In-depth studies on the partitive across the Finnic languages include parallel text-based quantified comparisons (Lees 2005) and diachronic investigations (Larsson 1983). Some questionnaire-based targeted typological research on Uralic languages includes the topic of the partitive, as the edited volume on negation (Miestamo et al. 2013). More theory-oriented and less data oriented approaches are almost exclusively on Finnish: cognitive (e.g. Huumo 2012), formal (Kiparsky 1998), generative (Vainikka and Maling 1996), or Optimality Theoretic (Kiparsky 2001, Anttila and Fong 2000). Several phenomena where the Estonian partitive is central are discussed from typological, cognitive and generative lexical comparative viewpoint in the research of Tamm (e.g., Tamm 1999, 2012c). Theses or articles based on theses are related to the partitive in Estonian (e.g., Tauli 1968, 1980, Nemvalts 2000, Vaiss 2004, Metslang 2007). This volume contains analyses of the Estonian partitive phenomenon in the typological framework (Metslang 2013, Huumo and Lindström 2013).

As opposed to previous approaches, this article wishes to improve the current

understanding by comparing some partitive related concepts and uses of separative cases with the instances from a language that has the highest type and token frequency of morphologically encoded partitive phenomena in spoken as well as written languages – Estonian. The current understanding in typology is that one cannot do typology and language-specific analysis at the same time, using cross-linguistic categories. Any theoretical bias is deliberately avoided in order to be "legible" for linguists and beyond across certain frameworks. An anonymous reviewer classifies the approach as cognitive-functional-typological, but it should be emphasized that none of these approaches are being defended or followed but used as heuristics where useful for understanding the phenomenon. A classical generative and typological mapping or linking problem is seen as the basis of the problem, which is tackled with methods from other frameworks in order to reach an understanding of the phenomenon and an enhancement of interdisciplinary study of the phenomenon.

This paper first applies the method that is typical for typologists (establishing the correpondences from meaning to form) and only then addresses the descriptive linguists' method (from form to meaning and use), and finally, it applies pragmatic and cognitive semantic methods to explain the current polyfunctionality, cross-linguistic variation, and diachronic aspects of the partitive phenomena. Section 2 introduces the conceptual coverage of the Partitive Concept and points at data that are not covered by the Partitive Concept. Section 3 classifies these problematic instances as Linguistic Partitive (LP) and introduces the term LP in more detail. Section 4 shows that the Uralic languages are a suitable test-bed for studying the partitive, with the Finnic, Skolt and Inari Sami languages, which all have a dedicated partitive case, and that have both functional and structural instances of the partitive. The chapter takes a look at the empirical data and discusses some of the cases that express the Partitive Concept in the Uralic languages. Section 5 concentrates on the conceptual and structural content of one instance of the linguistic partitive in those languages: the Estonian partitive evidential. The conclusion can be found in Section 6.

2. The conceptual coverage of the Partitive Concept

The discussion of this section is about a general conceptual notion of the partitive. It also makes reference to language-specific conceptualizations and the desemanticized instances of the partitive to emphasize the distinction.

2.1. Comparative concepts and psychologically real concepts

The labeling of the categories and the problem of language-specific versus more universal heuristic concepts has recently been subject of debates and research in typology (cf. Haspelmath 2007, 2010). The discussion of the Uralic partitives will relate to the current debate on comparative concepts versus descriptive categories, as there is a discrepancy between the forms and meanings across the various Uralic languages. I also wish to hypothesize that the concept that I construct for comparison is psycholinguistically motivated. The typological discussions concentrate mainly on the problem of the comparability of languages via artificial or natural concepts.

Haspelmath (2010) argues that descriptive categories and comparative concepts should be distinguished. More specifically, descriptive categories are the categories of particular languages,

and comparative concepts that are constructed for cross-linguistic comparison. The latter are created for the purposes of comparison. Since the criteria for category-assignment are different from language to language, descriptive categories cannot be equated across languages. However, linguists compare languages and need a toolkit for describing the correspondences, which is why they identify some cross-linguistic categories. The status of the latter is also a matter of debate. Typologists do not support the idea of cross-linguistic formal categories. Newmeyer (2007: 133) criticizes typology, pointing out the contradiction between rejecting the idea of cross-linguistic formal grammatical categories, and the policy of utilizing cross-linguistic formal categories, which is opted for in many entries of World Atlas of Language Structures (Haspelmath et al. 2005), despite the position of two of the editors that such categories do not exist (Newmeyer 2007: 138). Haspelmath (2007, 2010) argues that the categories used in the WALS are rather comparative concepts, not cross-linguistic formal concepts. Haspelmath argues that since semantic analysis provides a method for determining meaning, it can be used for making categories of languages comparable, even on a large scale.

What are comparative concepts in typology? Comparative concepts are concepts created by comparative linguists, for the specific purpose of cross-linguistic comparison. Comparative concepts are universally applicable, and they are defined on the basis of other universally applicable concepts: universal meanings and universal formal notions, or on the basis of other comparative concepts. Comparative concepts cannot be right or wrong. They can only be more or less well-suited to the task of permitting cross-linguistic comparison; each comparative linguist can make their own comparative concepts. Comparative concepts are heuristics that help to identify comparable phenomena across languages and to formulate cross-linguistic generalizations. Comparative concepts have to be universally applicable in typology as envisioned by Haspelmath. Language typology is made possible because of comparative concepts that serve as tertia comparationis.

The Partitive Concept is a concept created for comparison, and it is linked to several language-specific concepts. The different levels of semantics are seen as follows: the Partitive Concept is a comparative concept, an abstraction and a standard of comparison, and thus a heuristic tool. Language-specific partitive concepts or functions are called Linguistic Partitives and related to this comparative concept directly, referred to as metonymically or metaphorically. In addition, there are instances where the conceptual content has disappeared altogether (it has bleached) and the partitive encodes a syntactic function of a complement.

However, there is an important difference between the Partitive Concept and a comparative concept. The paritive concept that I construct in (1b) and in Section 2 for comparison is constructed in a way that it could serve as a hypothesis for having cognitive backing. Comparative concepts are like measuring units – arbitrary, but indispensable units for comparing objects of study. As opposed to comparative concepts that are created by comparative linguists for the purpose of formulating readily testable cross-linguistic generalizations, the Partitive concept is created in order to be able to test at a later stage whether the concept is also psychologically existent. Linguists can construct nonlinguistic stimuli (pictures, videos, artificial social situations) and observe speakers' reaction in a systematic way. The present paper has the aim of creating a suitable concept for further investigations into the cognitive properties of quantificational and spatial linguistic concepts such as the partitive. One of the most intriguing questions in modern cognitive science concerns how the human prelinguistic perceptual concepts are related to linguistic and language-specific, more refined concepts (Carey 2009). A basic concept that has multiple uses with highly varying domains of application in natural language – from spatial to intersubjective – is a promising area for discovery in cognitive science.

2.1. The labeling problem of some instances of the partitive in synchronic linguistics

It would be perfectly justified to refer to the case that is referred to as "the partitive" in the Estonian grammar rather as "the accusative". After all, it is the case that marks most of the objects in Estonian transitive clauses, as in (2).

(2)   Estonian
        Mari   *armastab*   *Jaanus-t.*
        M[NOM]   love-3s   J-PTV
        'Mary loves John.'

Only because of the awareness of the historical origin of this case morpheme, which typically but not always ends in -*t*, one of the object cases, "the accusatives", is referred to as "the partitive" and not as "the accusative number 1". The Estonian partitive is thus a kind of accusative in its function of being the predominant object case. The peculiarity of the Estonian object case system is that there are two object cases, the total and the partitive. The object case alternation is linked to various semantic and pragmatic distinctions, predominantly to the aspectual ones in the linguistic literature since the link between the Finnish partitive and the Russian imperfective was established (Dahl and Karlsson 1975). The total and the partitive are semantic as well as structural-grammatical cases (cf. Kipasky 1998). Since historical records are available, the more frequent object case is not referred to as the accusative but as the partitive.

Linguists can agree or disagree about labeling one of the many structural or semantic relationships in language structure as "the partitive". The term Partitive Concept (CP) is no less a matter of convention as well. The example in (2) has little to do with anything related to parts. The object *John* is marked with the partitive case, but the sentence does not express that Mary loves only some concrete or abstract part of John, e.g. his good manners, as opposed to someone else, whom she would love in total, regardless of his parts. In order to keep apart the diachronic motivation behind the changes that have lead to the current polyfunctionality in the synchronic situation, it is useful to make a distinction between the assumed original semantics of the formative that is now referred to as the partitive and later developments. The example in (2) is thus not an instance of the core meaning, the Partitive Concept, but an instance of a typical Linguistic Partitive in the Finnic languages.

(3)   A typical Linguistic Partitive (the morphological partitive case) in the Finnic languages covers a wider spectrum of meanings and functions than the Partitive Concept.

What is the core partitive meaning, then, and is it possible to establish it on the basis of the variety that is covered by the morpheme called "the partitive"? Do we need one more grammatical term, a new label; why cannot we just have the labels Accusative 1 and Accusative 2 for Finnic object cases, as in some freshly described languages with no written historical records and grammaticographic traditions? The rationale behind finding a suitable label for a phenomenon is

the existence of a grammatically encoded distinction or an expression in a language, preferably in many languages. Ideally, the distinction – the concept or relationship – would make an impression of being basic, real, and clear-cut.

The Partitive Concept can be understood as the term that stands for the most primitive or elementary concept of the partitive. The core meaning is relational. More specifically, it belongs to spatial relationships and identity conditions.

(4)   In terms of spatial relationships, the Partitive Concept instantiates a **separative relationship** of an individual or matter to another individual or matter.

(5)   In terms of identity, the partitive instantiates **the same kind identity** (not difference or similarity).

The Partitive Concept stands for separation from identical matter. The following passages will go through some instances that are typical or possible with the European genitive-based partitives, but not typical or possible with the Uralic ones.

There is an illustrative example from Estonian culture that suits the explanation of the partitive concept. The figure indicated on a website under example (8) is the most famous and highly ambiguous political cartoon in the Estonian art history. I nicely illustrates the essence of the partitive relationship. It has a cognitive linguistic *pointe* based on the visual image and the partitive concept in the nominal phrase *Sitta kah*. One reading of *Sitta kah* 'Some manure, too' (8a) corresponds to a literal Partitive Concept, and the other reading is idiomatic, a colloquial pragmatic phrase 'I don't give a shit/damn. / Who cares' (8b).[2]

(8)   *Sitta   kah…*
       manure.PTV   too
       a.   '(Let us take/throw some) manure (to the field), too.'
       b.   'I don't give a shit/damn. / Who cares.'
       c.   'Just shit.' (The English title for outsiders, which can be googled.)

The Partitive Concept, as in: throw (some of the) manure from the cart onto the field (Priit Pärn 1987:   16)   can   be   viewed   on   the   Wikipedia   page   at http://en.wikipedia.org/wiki/File:Priit_P%C3%A4rn_Sitta_kah.jpg (9 November 2012).

I provide now some background knowledge to explain why this typical instance of Soviet "writing between the lines" has found its way to a book on the partitives. This cartoon plays with the perception of the viewer in categorizing the parts of a whole as identical or different, and the interpretational ambiguity in the partitive noun phrase. First of all, please look at the lumps that are taken from the heap of manure on the cart and thrown onto the field. If you see one bigger lump of manure and two smaller lumps, then you get the explicit message exactly as any innocent

---

[2] There are several other political interpretations that I do not discusss here, related to the protes movement referred to as the Phosphorite War in spring 1987. Also, the cartoon marks a tipping point in history, see the details in Lõhmus (2004). The more prevailing English title of the cartoon deviates from the translation in order to convey the of the anti-Soviet sentiments in Estonia more adequately to the outside world: "Just shit". Estonians wanted the outsiders to know that they were treated by the Soviets as "just shit".

Soviet citizen at the end of the eighties would have. The political cartoon was published in May 1987 in the time of deep stagnation and much before the Berlin wall came down in 1989, and Reagan's speech in Berlin ("Mr Gorbachov, tear down this wall") took place in June 1987. So it was crucial to create an image that, after falling on the retina of the viewer, patterned differently for the two opposite ideological camps because of the related visual associations. For those whose memory was imprinted with images of art depicting humans and animals at work, the image could have been interpreted as applauding a weary but heroic collective farm worker of the Peasant Class, in his efforts to fertilize the field in the face of adversity. Thus, it is an impeccable picture for the Party leadership and its censorship (if you write *sitta kah* in Google Translate, it would give you an innocent 'of shit, too'). This is what the censor or a random Soviet citizen would get: the picture of an unintellectual peasant working hard and suitable to boost the morale of the starving people.

However what is written and drawn between the lines? On the basis of the nominal partitive case marking of the text ("some of the manure, too"), the separated mass has the same identity as the rest of the manure mass on the cart.[3] The shape of the manure that is thrown out corresponds to the contours of Estonia. The message between the lines is readable only by those who recognize the difference in the identity between the mass on the cart and the separated object that is thrown on the field. In the eyes of the more informed beholder there is the violation of the identity condition of the partitive, which causes the exclusion of the reading (8a) '(Let us take) some manure (to the field), too.' For the separation of objects with different identity, a native speaker of Estonian would use the elative instead of the partitive. Instead of "take *some of* the manure" – something with the same identity, partitive case – the action is interpreted as "take *something from* the manure" – something with different identity. Therefore, the literal meaning is not the default one for those who recognize the shape. Only the idiomatic reading of the colloquial *Sitta kah* "I don't give a shit / Who cares" and not "some manure, too" is activated for those who see the contours of Estonia instead of the three blots of manure. In the context of several countries seeking independence of the Soviet Union, the disgraceful heap of manure transforms into the Soviet Union. The half-blind horse pulling a half-wheeled cart turns into the senseless state machinery, and the unelegant and uninspired peasant becomes the mindless party leadership. The field is the free world. The message between the lines is the wishful thinking of those who would soon be tearing down the wall in Berlin, coaxing the mindless leaders: "just throw some of this manure out, anyway, this cart is too heavy, take this lump from the manure for instance, *who cares* (*sitta kah*), throw it well, far onto the field, please!"

The moral of the story is that the elative separative is less specific about the identity of the object or matter that is separated; the partitive separative requires identity between the parts and wholes. Note that the picture emphasizes dynamicity. An entity that is perceived as having a clear identity (manure) of its own is divided in two in the course of movement. It is the question what the identity of the entities in the newly created situation is, that is, how the two parts are categorized: *manure+manure* or *manure+something different*. The two separated parts are transformed into new objects. The two entities differ in shape and size from each other and from the original entity.[4] In many other respects, however, the two new entities are identical. The parts share all other properties, such as color, texture, smell, and most plausibly, function (something to

---

[3] For some, the horse lacks one eye and, therefore, pulls the rickety carriage of the party to a wrong direction, and for others, the peasant looks obviously uninspired and unelegant.

[4] In some cases, they may differ in number (as in an instance of strawberries in strawberry-picking).

drink, something to eat, something to feed animals with, something to make clothes of, something to fertilize the fields with) and so forth.

In static relationships, parts of matter with identical properties cannot be perceived easily; in order to be perceivable, the identity of the part should be somewhat different from the whole. In order to be perceived as a part, the entity must be focused on or highly salient in its essential and perceivable properties. Focusing is controversial, because the focused part would be categorized away as a different entity located inside or on top, or in the close vicinity. Therefore, if the identity of the parts and the whole is the same, then the salience of the parts has to be created in one or another way, since the image of the part as such has to be perceived as a part. Note again how the picture emphasizes the dynamicity of the separation of the part. It is problematic to envisage proper partitive relationships without movement. In the course of actions of removing, identical matter becomes a part without other salient features interfering with the categorization of the part.

Possibly, separation from identical matter is a concept that humans (and possibly, animals) can form a category of, and possibly, it can be expressed by all human languages. These plausible hypotheses remain to be tested. The core semantics of the CP is "part of N that can be referred to as N". As a matter of regular polysemy – metonymy – the referent of a part can become analyzed as a whole, and the partitive semantics corresponds to "amount-of-N", referring to a part or quantity out of a group or amount of substance.

(9) a. "separable part of N that can typically be referred to as N" →
    b. → "amount of N" (metonymic extension of 4a)

Whereas the core partitive meaning, as in (9a), "part-of-N" is relational, the basic extension of this meaning, (9b), "amount-of-N" is not. In the Hungarian sentence (10a), the youngest of my children is in a relation to other individuals referred to as my children, while in the Hungarian sentence (10b) ("a glass of wine"), the wine does not necessarily belong to any larger amount of wine, it is just an amount. I set the partitive forms of the forms carrying the partitive meaning boldface in this paper. Sentence (10a) illustrates (9a), part-of-N, and sentence (10b) illustrates the meaning (9b).[5]

(10) Hungarian
    a. **gyerekeimből**   a   legfiatalabb
       child-PL.1PX-ELA   DEF   youngest
       'the youngest of my children'
    b. az   egyik   belőlük
       DEF   one[NOM]   they-ELA
       'one of them'

---

[5] The reading in (9a) corresponds to real partitives and the reading (9b) to pseudopartitives in the typological literature, as in Koptjevskaja-Tamm (2001). Pseudopartitives are generally taken to refer to an amount or quantity of some (indefinite) substance (*e.g., a cup of tea, a package of butter, a box of chocolates*). Real partitives refer to a part/subset of a (definite) superset (*e.g., a hot cup of this green tea, a large package of this Danish butter, a small box of these chocolates*). Languages differ in terms of how they encode real partitives and pseudopartitives. Koptjevskaja Tamm (2001) establishes that there is considerable variation between languages in the grammatical marking of the substance-denoting expression in partitive and pseudo-partitive constructions, ranging from case inflections to prepositions to zero marking, denoting typically conventionalized measures (*a litre of x*), fractions (*a slice of x*), quanta (*a lump of x*), collections (*a group of x*), or forms (*a pile of x*).

c.   *egy*   *pohár*   ***bor***
       INDEF glass[NOM]   wine[NOM]
       'a glass of wine'

Examples (10a) and (10b) illustrate the core meaning of the Hungarian Partitive Concept: the youngest *of* my children, one *of* them. The construction with the elative represents the core meaning, because it refers to an individual, "one child of mine", namely, the youngest, or "one of them", that has the same identity with other members of the set where it belongs to (the set "my children"). It is not an "amount-of partitive", I cannot refer to my child as the youngest of my children or as one of my children if I do not have more children than one.[6] All of my children form a whole, and the youngest one is separated from them in conversation as part of this whole. His or her identity is also separated, as that of the youngest of them.

      The relationships between parts and wholes are different with the wine in the glass and wine. The wine in the glass can exist without any more identical type of wine in a bottle, a cask or a barrel. The wine is not necessarily a proper part of another amount of wine, that is, anything else of the same identity. It is an "amount-of partitive", because the wine in the glass can exist without being in relation to any other amount of wine, that is, without anything else of the same identity.

      Now I describe briefly the method. Some European genitives have similar meaning with the metonymic extension of the part-of meaning, (9b) (see Luraghi 2013 for more examples and discussion in terms of indefiniteness). Descriptive linguistics of Russian is concerned with the question if the category expressed by *-u* on *čaj-u* in *čaška čaj-u* 'a cup of tea' in (11) is genitive 2, or it is more accurate to call the phenomenon "partitive".

(11)   Russian
      čaška   *čaj-u*
      cup[F.NOM]   tea- PTV/GEN 2
      'a cup of tea'

This paper uses the typologists' method first and only then the descriptive linguists' method, and finally, applies pragmatic and cognitive semantic methods to explain the current polyfunctionality, cross-linguistic variation, and diachronic data. This means that it first defines a CP, views it as the core meaning and tries to find how it is expressed in languages. Following the typological method, *čaška čaj-u* 'a cup of tea' in (11) is a "partitive". However, according to the definition in (9), it expresses only the metonymical extension of the core meaning, (5b). It is an "amount-of partitive", because the tea in the cup of tea can exist without being a proper part of another amount of tea, that is, anything else of the same identity.

      The study of Partitive Concepts uses the typological method in finding a way through the rich and puzzling empirical material. Section 5 targets the content of the Partitive Concept and demonstrates the variety of expression that it has on a large sample. In this case, the sample is the Uralic language family.

3. The conceptual coverage of a Linguistic Partitive (LP)

---

[6] Perhaps the infelicity is evoked by a scalar implicature. If you have one child, it is the youngest and the oldest child, but it is not felicitous to evoke a comparison when there is none.

If the Partitive Concept is a heuristic tool to get a grip on the ways a specific meaning content can be expressed in a wide variety of languages, then what is the term Linguistic Partitive good for? Consider the Inari Sami example of the partitive on 'river' in 'eight rivers' that appears with numerals higher than 7, as in (12).

(12)　　Inari Sami
　　　　Mun　uáinám　　　käävci　　　juuhâd.
　　　　I[NOM] see-1s　　　eight　　　　river.PTV
　　　　(Toivonen 2003: 66)

Synchronically, the system is opaque. The partitive in the numeral phrases is cognitively motivated, but only in numbers higher than 7. Lower numbers do not require the partitive and the non-partitive cases should be accounted for by another explanation that is less conceptually semantic in nature. The partitive can be understood as a Partitive Concept, eight of the rivers (the core meaning), or an amount of rivers, eight of the kind 'river'. However, the partitive in this construction is not a matter of regular meaning extension; cognitively the distinction is not motivated. Instead, it is a matter of convention, since in 'six rivers' there is no partitive on 'river', although there is no known perceptionally, conceptually, or psycholinguistically significant distinction between more or less than seven rivers that would motivate the difference in case encoding.[7] Although all complements of the Inari Sami numerals are instances of Partitive Concepts, because they instantiate the core partitive or its basic extension, but only the 7+ ones are also Linguistic Partitives, because they are instantiated by a formative that corresponds to the historically motivated Partitive Concept.

(13)　　A Linguistic Partitive is a formative that form-wise corresponds to the partitive morpheme that is derived from a separative case.

The correspondence may be conceptually motivated, meaning that the use can be conceptually linked to the Partitive Concept, but the relationship with the CP can be opaque as well. The morphological partitive semantics is opaque in (12), since the Partitive Concept does not unambiguously determine the morphological partitive case encoding in the construction. The partitive marking in (12) is restricted by convention and not by semantics, even if the semantics of the Partitive Concept is present.

　　　　Are there any LPs that are not CPs at all? The example above is both CP and LP. Partitives that mark structural relationships such as complementhood are an instance of LPs that are not CPs and synchronically, they can be considered instances of the *structural* partitive. The noun *jõgi* 'river' is marked with the same morphological partitive (the partitive form is *jõge*) if it is the complement of the numeral 'two' and the verb 'look at' in examples (14a) and (14b), as well as if it is the complement of a preposition or a postposition in examples (14c) and (14d).

(14)　　Estonian

---

[7] See also Nelson (2003) for a comparison between the partitive use of Inari Sami and Finnish. This convention of numbers does not have a conceptual but rather conventional basis, perhaps best to be compared to the Russian word for 40 (sorok). This simplex number originates from fur trade – forty furs were a unit necessary for sewing a coat (Shanskiy and Bobrova 1994).

a.   *kaks*   **jõge**
          two[NOM]   river.PTV
          'two rivers'

b.   *vaatan*   **jõge**
          look-1s   river.PTV
          'I am looking at the river.'

c.   *mööda* **jõge**
          along   river.PTV
          'along the river (prepositional phrase)'

d.   **jõge**   *mööda*
          river.PTV   along
          'along the river (postpositional phrase)'

The complement of the numeral 'two' is marked with the partitive in example (13a) and it is a Conceptual and a Linguistic Partitive; as the complement of the verb 'look at' in example (13b), the link with the Partitive Concept is semantically motivated but not as obviously as in the case of the complement of the numeral quantifier. As the complement of a preposition or a postposition in examples (14c) and (14d), the partitive noun is not an instance of CP, but an instance of a Linguitsic Partitive that has evolved into a general grammatical complement marker.[8]

(15)   Linguistic partitives are formatives that have evolved in the course of language change from a morpheme or a construction in a language that stands for a Partitive Concept (as defined in 9). They may but do not have to correspond to the Partitive Concept in one of their uses.

These formatives may have bleached meaning; they have diverse semantics and syntax but are "kept together" as a category by their morphological form. An illustration of a highly diverse semantics couched under an identical formative is exemplified by an instance of a partitive expressing part-whole quantity, definiteness, boundedness, aspectual, epistemic modal, irrealis, and evidential meanings. I illustrate briefly two paths of grammaticalization of the Estonian Linguistic Partitive in (16) and (17), at this point, without further motivating the spread of the meanings or functions.

---

[8] Previous formal linguistics literature contains many good examples or morphological partitives without clear semantic content or function. Vainikka and Maling (1995) analyze the partitive as a structural relationship, the default complement case of complements in Finnish. Kratzer (2004) also 'de-semanticizes' the Finnish partitive in the sense of regarding it as a default. The use of the partitive in these examples bears striking resemblance to the bare nominal use of Hungarian nouns; namely, bare uninflected nouns are used in Hungarian – that otherwise has cases such as the accusative and the dative that could be "recruited" as complement cases – in the same environments. The dependents of the numeral heads and pospositions are bare, uninflected nouns in Hungarian. In addition, the predicative use of Hungarian bare nouns and the predicative use of the Estonian partitive (2008a), as well and the pseudo-semantically incorporated Hungarian bare nouns and a subset of Estonian abstract or deadjectival partitive objects and subjects (2013a) are also an interesting parallel to explore in the light of an indefiniteness account, such as Luraghi (2013).

The path in (16) sketches the emergence of epistemic modals, evidentiality, and epistemic modal object case alternation. The examples will follow from Section 4.3.3 onwards. The original part-of-N meaning (16a) gives rise to part-of-V meaning, that is, a nominal quantization meaning, as in *Mary ate a part of apple* becomes an event quantization meaning, as in *Mary is halfway eating the apple*. This is the extension of the nominal meaning to the aspectual meaning of the partitive.[9] In some cases, the aspectual partitive object of verbs of perception and mental verbs has a deverbal modifier (as in *I heard a sing+ing bird*), which agrees in case with the head noun (16b). Thus it has a partitive encoding. When a deverbal modifier of the object was reanalyzed as a predicate on its own, the partitive did not disappear but started to be interpreted as a modal marker (16c). As the complement of saying verbs, the matrix saying verb was dropped in the construction, giving rise to the indirect evidential, which still preserved the formative of the partitive (16d). However, in communication, for the hearer, indirect evidence is inferred to be incomplete evidence. Therefore, the partitive evidential has a double function: to encode the multiple speaker-hearer relationships and epistemic modality, incomplete evidence (16e). The epistemic modal meaning of the partitive objects is reinforced. The strengthened meaning is understood as incomplete evidence about the completion or completability of an event instead of incomplete event (16f). The examples illustrating the sketch can be found in the following subsections.

(16) a.   "part of N" →
      b.   → "part of V" (N-obj has the morphological partitive marking)
      c.   → (N-object is a non-finite, deverbal nominalization and partitive marked)
      d.   → "indirect evidence" (V-nonfin (main predicate) has the morphological partitive formative)
      e.   → "part of/incomplete evidence" (V-nonfin (main or embedded predicate) has the morphological partitive formative)
      f.   → "part of/incomplete evidence for the completion/completability of the event" (partitive object case)

The path in (17) sketches the emergence of the "default partitive" without semantic content. First of all, I point out that the semantic part-of meaning has lost the morphological partitive marking; it is not known when it disappeared (17a) but the fact is relevant in this context. The rest of the meanings can all be observed in the present-day Estonian for instance. Only the "amount of N" has the morphological partitive marking (15b). This meaning is metonymically carrried over to the predicate level, (17c), to mean "amount of V" , but it is not the verb but the object noun that has the partitive marking. In the next step, the partitive nouns become the general, default object markers (17d).[10]

The object is a complement of a verb, but the partitive is generalized into a more general complement in a language, perhaps also on the analogy of the partitives found in numeral and other measure phrases (17e).

(17) a.   "part of N" (the morphological partitive marking has disappeared) →

---

[9] Historical overview can be found in two sources concentrating on Finnic, Larjavaara (1991) on the development of an aspectual object and Ikola (1953).
[10] Only a few constructions have retained the accusative-total as a default object option (more analysis can be found in Tamm 2008a, 2008b).

b. → "amount of N" (has the morphological partitive marking)
c. → "amount of V" (N has the morphological partitive marking)
d. → "N-obj" (N has the morphological partitive marking)
e. → Adpostion "N-obj" (N has the morphological partitive marking)

I put aside constructions where the partitive has little or no semantic content. Generally, semantic content is missing in combinations with adpositions, where the partitive could be viewed as a general complement case with certain prepositions, postpositions, numeral phrases, and verbs in the Baltic Finnic languages.

4. The Partitive Concept in the Uralic languages

This section takes a look at the empirical data and discusses some of the cases that express the Partitive Concept in the Uralic languages. Before the discussion I emphasize that the case appears only in argument or predicative functions and should be understood as such. I illustrate the meaning extension of the partitive concept, the pseudopartitive, without embedding into a sentence.

4.1. The empirical data

What is special about the Uralic partitives? Embeddedness in rich case systems: the multitude of Source (separative) cases and a mismatch between partitive semantics and semantic partitives. Thus, firstly, the Uralic languages have many cases that can be classified as Conceptual as well as Linguistic Partitives. Several source cases have a similar meaning with the partitive, plus the partitive. Secondly, there is a wide spectrum of "what the partitive is used for" in languages with the partitive – it is not used just for the Partitive Concept, and the partitive has spread all over the TAM system. The interaction between TAM and the partitive is exceptionally clear in these languages, which display the aspectual DOM, DSM, and DAM, definiteness effects, telicity, and partitive arguments. These languages are special about their cross-categorial case - case on non-finites and verb stems.

Uralic languages are typically characterized by rich case systems with approximately 10 members, and many have case systems of approximately 15 or 20 cases. In the selection of languages in the WALS, on the map by Iggesen (2008), there are 24 languages recorded with black dots, which stand for syatems with more than 10 cases.[11] Five of those listed are Uralic (Erzya Mordvin, Estonian, Finnish, Hungarian, and Udmurt). The North-Eastern European and North-Western Asian area would be studded with black dots on the WALS map if all Finno-Ugric languages were represented. Table 1 summarizes the number of cases in some Uralic languages.[12]

---

[11] The following languages have "black dots" in WALS: Awa Pit, Basque, Brahui, Chukchi, Epena Pedee, Estonian, Evenki, Finnish, Gooniyandi, Hamtai, Hungarian, Hunzib, Ingush, Kayardild, Ket, Lak, Lezgian, Martuthunira, Mordvin (Erzya), Nez Perce, Nunggubuyu, Pitjantjatjara, Toda, Udmurt.

[12] Erzya Mordvin has 12 cases: nominative, genitive/accusative, dative/allative, interior illative, inessive, elative, exterior ablative lative prolative triplets, translative, abessive, comparative, and Moksha Mordvin 13 cases (Zaicz 1998: 192-194), with the additional causative. Eastern Mari – 8 productive and 3 nonproductive cases (Kangasmaa-Minn 1998: 226). Udmurt 16 cases (Riese 1998: 268), nominative, accusative, genitive, dative, approximative, genitive/ablative, inessive, elative, ablative, terminative, instrumental, egressive, caritive, adverbial, prolative 1 and 2. Komi has 18 cases (Riese 1998: 268), nominative, accusative, genitive, dative, approximative, genitive/ablative,

Table 1. The number of cases in some Uralic languages.

language	Number of cases
Erzya Mordvin	12
Moksha Mordvin	13
Eastern Mari	8+3
Udmurt	16
Komi	18
Komi Permyak	17
Votic	14
Võro	13+3
Northern Sami	7 or 6
Lule Sámi	7
Southern Sámi	8 or 7
Inari, Pite, Skolt Sámi	9 or 8
Inari, Pite, Skolt Sámi	9 or 8
Inari, Pite, Skolt Sámi	9 or 8
Khanty	3-11
Mansi	6-7
Nganasan	8-11
Selkup	13
Kamas	7
Tundra Nenets	7
Estonian	14
Finnish	15
Meänkieli	13
Ingrian	10
Karelian	12-16
Veps	22-23

inessive, elative, ablative, terminative, instrumental, egressive, caritive, adverbial, prolative 1 and 2, consecutive, comitative. Komi Permyak has 17 cases (Lytkin et al. 1962: 184). Tundra Nenets 7 (Salminen 1998: 537), nominative, accusative, genitive, dative, locative, ablative, prosecutive (this is the suggested Proto-Samoyedic inventory, Janhunen 1998: 469). Kamas has 7 cases (Szimoncsics 1998: 585-586), nominative, accusative, genitive, lative, locative, ablative, instrumental. Selkup has 13 (Helimski 1998b: 560-561), nominative, accusative, genitive, instrumental, co-ordinative, caritive, translative, dative/allative, illative, locative, elative, prolative, vocative, Nganasan 8-11 (Helimski 1998a: 496), nominative (= absolute form), accusative, genitive, lative (= dative, or dative-lative), locative (=locative/instructive), elative (=ablative), prolative (=prosecutive). The Sami languages are described having systems with 6-9 cases. Inari, Pite, Skolt Sámi 9 or 8, Southern Sámi 8 or 7, Lule Sámi 7, Northern Sami 7 or 6 (Wikipedia). Khanty (3-11, including the fact that the alignment system has variants, e.g. the Khanty Vakh dialect has an ergative-accusative alignment), Mansi (6-7) (Honti 1998: 343). Hungarian 18 cases (but there are heavy debates whether what has been referred to as case is in fact case, or nominal marking of different nature). Veps has 22-23 cases (Viitso 1998), Karelian 12-16 (Markianova 2002), Ingrian more than 10 (Viitso 1998). Meänkieli (Finnish in Sweden) has two cases less than Standard Finnish, which has 15 cases. Võro is described as having 13 productive and 3 nonproductive cases (Iva 2007: 41). The Votic dialect reported by Tsvetkov (2008: 27) has an inventory identical to that of Estonian, consisting of 14 cases. The additional unproductive exessive and instructive, and the accusative object case are recorded in the dialect studied by Ariste (Ariste 1968: 17).

In sum, the Uralic languages are a suitable testbed for studying several kinds of partitive. On the one hand, there are several cases that denote separation and source. There is a whole sub-branch of languages, the Finnic ones, that all have a dedicated partitive case.

Table 2. Languages with a linguistic partitive and languages with a morphological separative case.

Languages with a linguistic partitive	Languages with a morphological separative case
Finnic, some Sami languages	The rest of the Uralic languages, with the exception of some dialects

Source cases in poor paradigms. There is a sharp distinction between the Samoyedic, Sami, and the Siberian Ob-Ugric languages have somewhat poorer case systems where the inventory of source cases is also somewhat poorer than in the rest of the Finno-Ugric languages. This tendency seems to be more a matter of a South-North opposition. Source cases in the somewhat poorer paradigms express the part-of partitive relationships, in which the amount-of partitive is typically expresed by juxtaposition.[13]

4.2. Partitive cases that denote source

In the rest of the Uralic languages, there is a wide variety of cases that denote source. The specialization of source cases is not unique for the Finnic languages. What makes the Finnic system special is the specialization of source cases so that one of them denotes the division of an entity and that the result is the separation of two entities that are still identical in relevant respects.

Source cases in the Uralic languages are the ablative, elative, delative, egressive, genitive-ablative and exessive. The ablative (Erzya, Estonian, Finnish, Hungarian, Mansi, Vepsian, Votic, etc) denotes movement away from something (e.g., away from the house). The elative (Erzya, Estonian, Finnish, Hungarian, Lule Sámi, Pite Sámi, Votic, etc) denotes "out of something" (e.g., out of the house). The delative (Hungarian) term covers the concept of movement from the surface, e.g., from (the top of) the house. The egressive (Veps, Udmurt) marks the beginning of a movement or time (e.g., beginning from the house). The exessive (Karelian, Ingrian, Livonian, Votic, Estonian, etc) denotes a transition away from something (from a house). The genitive-ablative of Komi stands for a source of information, or for a resource; this case is interesting in combining the genitive and separative meaning in a discourse setting.

In the Uralic languages, the Partitive Concept seems to be generally expressed by the elative case. If there is no dedicated elative case, then the semantic partitive is expressed by a case called the ablative and understood as the most general separative case. The genitive case is not present in all Uralic languages. Most notably, Hungarian lacks it altogether. It seems that the Uralic partitives are not marginal extensions of genitives but they are specific, same-identity separatives. At this point of research, a hypothesis can be worded as in (18).

---

[13] The following lists present the case systems of poorer Uralic languages and the source cases that can express the conceptual partitive are set in the boldface. The Tundra Nenets system of seven cases (Salminen 1998: 537, the nominative, accusative, genitive, dative, locative, prosecutive) has the **ablative**. The Kamas system of seven cases (Szimoncsics 1998: 585-586), nominative, accusative, genitive, lative, locative, **ablative,** instrumental. The Selkup system of thirteen cases (Helimski 1998: 560-561), comprising the nominative, accusative, genitive, instrumental, co-ordinative, caritive, translative, dative/allative, illative, locative, prolative, vocative has the **elative**. The Nganasan system of eight to eleven cases (Helimski 1998: 496) contains the nominative (= absolute form), accusative, genitive, lative (= dative, or dative-lative), locative (=locative/instructive), prolative (=prosecutive) and it has an **elative (=ablative)**. The poorest system can be encountered in some dialects of Khanty.

(18) Hypothesis: Compared to genitive based partitives, the Uralic partitives are specialized separatives.

(19) More specifically, the Uralic partitives are same-identity separatives expressed by a case.

It is worth investigating how the Partitive Concepts are expressed in languages that do have a genitive alongside with an elaborate system of separative cases. The Indo-European languages do not have any elaborate system of source cases that would be comparable to the Finnic ones, but they have genitives, and their partitives are frequently based on the genitive semantics. In the Finnic languages, the typical partitive functions of the Indo-European genitives, such as in Russian in the example above, are never covered by genitives but by partitives, if there are no partitives, then by elatives or other general separatives, or by no case marking. It is a good question if some Partitive Concept meanings are covered by genitive in languages combining a rich separative system with a genitive in the case paradigm. The following sections present the types of Uralic languages according to the place of the partitive within the overall system of separatives. Type 1 is illustrated by the Partitive as one of the source cases. Type 2 has no linguistic partitive but several source cases. Type 3 exemplifies a system with a linguistic partitive but no grammatically encoded source cases. Type 4 illustrates a system with no morphological partitive or separative cases.

All of these languages have also postpositions that can expresse source, but the present article confines itself to one illustrative example. The system of parallel ways of expressions in a more elaborate system of postpositions is from Estonian separative postpositions. Relationships that are similar to case relationships are instantiated by a rich system of postpositions. In Estonian, movement away from an entity can be expressed by postpositions that stand (in terms of language history) in the elative or the ablative case, as in (20). They typically end in *-st* or *-lt*, thus the elative or ablative endings. The examples containing postpositions that are semantically roughly interchangeable with source cases are set bold in the example.

(20) Estonian
    a. ***paadi see-st***
       'from inside a boat'
    b. *paadi juure-st*
       'from the vicinity of a boat'
    c. *paadi ääre-st*
       'from the (outer, longish) side of a boat'
    d. *paadi külje-st*
       'from the (inner) side of a boat, from being attached to a boat'
    e. *paadi otsa-st*
       'from the topmost, outmost, close-fitting, or sharp top or end of a boat'
    f. *paati-de   sea-st*
       'from among the boats'
    g. *paati-de   hulga-st*
       'from among the boats'
    h. ***paadi pea-lt***
       'from top of a boat'

    i.   *paadi koha-lt*
          'from above a boat'
    j.   *paadi kõrva-lt*
          'from the outer side of a boat'
    k.   *paadi ümber-t*
          'from around a boat'
    l.   *paadi al-t*
          'from under a boat'

The composite forms that are based on postpositions that have a recognizable elative component are the following: 'from inside a boat' (20a), 'from the vicinity of a boat' (20b), 'from the (outer, longish) side of a boat' (20c), 'from the (inner) side of a boat, from being attached to a boat' (20d), 'from the topmost, outmost, close-fitting, or sharp top or end of a boat' (20e), 'from among the boats' (20f) and (20g). Other composite forms are based on postpositions that have a recognizable ablative component: 'from top of a boat' (20h), 'from above a boat' (20i), 'from the (outer) side of a boat' (20j). Some forms have just a recognizable -*t* in the postposition, which we see in the elative and ablative formants as well: 'from around a boat' (20k) and 'from under a boat' (20l). The present study is carried out proceeding from the assumption about the relevance of the difference between cases and adpositions in carving up the conceptual space, as in (21).

(21)   The distinction between cases and adpositions is grammatically relevant in languages that have cases as well as adpositions expressing many separative concepts.

More particularly, if the semantic field of separative motion is so diverse, then the partitive and partitive-like meanings are specialized as opposed to vague. The digression into the postpositions was necessary to illustrate the position of partitives and separatives encoded by cases in a system of several conventionalized means of expressing separation. In several instances, it can be observed that the multitude of forms are composite in the sense that the elative or ablative cases can be reconstructed as parts of the composite forms. There are also forms that ar formally similar, containing an ending with a -*t*, but not reconstructable with the elative or ablative cases (e.g. *ümbert*). This paper will only be addressing cases.

        Note that the works explicitly contrasting partitive meanings are missing in languages that grammaticalize partitives as case and as adposition simultaneously. This is a curious fact, since there are several studies that demonstrate a contrast between a spatial case with a spatial adposition, or that contrast adpositional and non-adpositional forms of genitives.

4.3. Source (separative) cases and the partitive

This subsection examines which languages have source cases and the partitive, and what their patters and significances are..

4.3.1. The partitive as one of the source cases.

The system incorporating a partitive and source cases is illustrated by Estonian in Table 3. The source cases are set boldface.

Table 3. The Estonian case system

case	translation N	example N
Nominative	book	raamat
Genitive	of a book	raamatu
Partitive	**(of) a book**	**raamatu-t**
Illative	into the book	raamatu-sse
Inessive	in a book	raamatu-s
Elative	**from (inside) a book**	**raamatu-st**
Allative	onto a book	raamatu-le
Adessive	on a book	raamatu-l
Ablative	**from the book**	**raamatu-lt**
Translative	in(to), as a book	raamatu-ks
Terminative	until a book	raamatu-ni
Essive	as a book	raamatu-na
Abessive	without a book	raamatu-ta
Comitative	with a book	raamatu-ga

The development from source to origin or cause is a possible but rather rare meaning extension of the partitive in a system that is rich in source cases and has a partitive. The following example illustrates the cause partitive on the so-called „infinitives" in Karelian (22).

(22)   Karelian
Suurdu   keittä-miä   pada   musten-i.
big.PTV   cook-M.NMLZ_PTV   pot[NOM]   blacken-3S.PST
'Intensive cooking made the pot turn black.'

Since the partitive marked adjective *suurdu* 'big, intensive' as in (22) can modify the partitive form in question, the latter cannot be an infinitive, but another type of nominalization with more nominal properties than infinitives would have. The meaning of a cause event emerges with the Karelian event predicates and partitive marking. This instance of partitive gives evidence of causation and event structural properties of the predicates involved.

4.3.2 No partitive, several source cases

A system without the partitive but with several Source cases can be found in Udmurt, illustrated by Table 4. The source cases are set boldface.

Table 4. Cases in the Udmurt noun paradigms

Case	nou+case
Nominative	s'ik
Genitive	s'ik-len
Accusative	s'ik
	/s'ik-ez
Ablative	**s'ik-les'**
Dative	s'ik-ly
Adessive	s'ik-len
Instrumental	s'ik-en
Abessive	s'ik-tek

18

Inessive	s'ik-yn
Illative	s'ik-e
Elative	**s'ik-ys'(t)**
Terminative	s'ik-oz'
Egressive	**s'ik-ys'en**
Prolative	s'ik-eti
Approximative	s'ik-lan'

Hungarian lacks a morphological partitive, but its inventory of three separative cases allows interpreting these cases, especially the elative, as Partitive Concepts. The elative, illustrated in (23a), denotes separation from a container, the ablative denotes separation from the vicinity of something (23b), and the delative denotes the separation from the object by movement from a surface (23c).

(23)   Hungarian
         a.   ***ház-ból***
                house-ELA
                'from (inside) a house'
         b.   ***ház-tól***
                house-ABL
                'from (the vicinity of) a house'
         a.   ***ház-ról***
                house-DELA
                'from (the top of) a house'

Also, several other Uralic languages have separative cases that are not referred to as partitive, but their semantics is that of a prototypical partitive. As in Hungarian, the typical Partitive Concepts are realized by the elative (or the ablative, if there is no elative). Example (24) illustrates the Estonian Partitive Concept realized by the elative (the youngest *of my children*).

(24)   Estonian
         noorim   mu   laste-st
          youngest   my   child.PL-ELA
         'the youngest of my children'

4.3.3. Partitive and no source case: Sami

It has nominative, genitive, accusative, illative, locative, comitative, abessive, essive and the partitive – the last two cases only exist in their singular form, as described in Toivonen (2003: 36) in Table 5. The partitive is set blue.

Table 5. The Inari Sami case paradigm for kietâ 'hand' (Toivonen 2003: 36).

	singular	plural
nominative	**kietâ**	**kieδah**
genitive	**kieδâ**	**kieδâi**
accusative	**kieδâ**	**kieδâid**
illative	**kietân**	**kieδáid**

locative	kieδâst	kieδâin
comitative	kieδáin	kie'δâigui'm
abessive	kie'δâttáá	kie'δâittáá
essive	kiettân	
partitive	kiettâd	

Sami comparative constructions are a possible extension of the partitive in a system with no source or separative cases but a partitive that appears in singular only, as in (25a). In Inari and Skolt Sami, the partitive case cannot be regarded as a general complement case like the partitives of the Finnic languages, since its use is restricted to specific constructions only (e.g. restricted postpositional, number phrases, etc).

At this point it is worthwhile to make a digression into an interesting variation that regularly involves the partitive or a source case in Uralic languages. There are several comparative constuction types in the Uralic languages. Among them, there is one where the standard of comparison is marked with a source case, which is frequently the elative or the partitive. In Inari Sami, the standard of comparison is marked with the partitive, as in (25a). Marking the meaning of 'N has the property Adj more than someone/something' is not rendered (only) by 'N is Adj-er than someone/something', but (also) by 'N is of/from someone/something Y(-er)'. In source case systems with source cases and the partitive, the marking of the standard of comparison varies. In Estonian, the standard of comparison is marked with the elative, but Finnish has variation between the partitive and the elative. In systems with several source cases, it is frequently the elative that is used as the marker of the standard of comparison.

(25) a. Inari Sami
    Muorâ   *lii*   *táállud*   *ucceeb.*
    tree[NOM]   be.3S house.PTV   smaller
    'The tree is smaller than the house.'
    (Toivonen 2003: 65)

    b. *Miehe-ni*   *on*   *3 kk* *minu-a*   *vanh-empi.*[14]
    man[nom]-1SPX   be.3S 3m   I-PTV   old-COMP
    'My husband is three months older than me.'

    c. *…nainen*   *ol-i*   *minu-sta*   *vanh-empi*[15]
    woman[NOM] be-PST3S   I-ELA   old-COMP
    'The woman was older than me.'

    d. *Toomas*   *on*   *Peetri-st*   *van-em.*
    T[NOM]   be.3S P-ELA   old-COMP
    'Tom is older than Peter.'

---

[14]http://www.vauva.fi/keskustelut/alue/2/viestiketju/1631975/mieheni_on_3_kk_minua_vanhempi_onko_liian_suuri_ikaero
[15] http://keskustelu.suomi24.fi/node/10906453

5.3.4. No partitive or separative

Almost all Uralic languages have a source case that is used for marking the source argument. The poorest case system can be encountered in some dialects of Khanty, where there is a distinction between four cases only. In the Kazim dialect, the separative cases are missing altogether, in others, there is still an ablative.

Table 6. Tha case system of some Khanty dialects (on the basis of Ruttkay 2003: 20)

case	Kazym dialect	Vakh dialect	Vasyugan dialect
nominative	Ø	Ø	Ø
accusative	-t	-t	-t
lative-dative	-a	-a	-a
approximative		-pa/-pä	
translative		-γa/-γÎ, -γ	-γa/-γÎ, -γ
locative	-an	-na/-nÎ	-na/-nÎ
instrumental-final		-ta/-tÎ, -a/-Î	-ta/-tÎ, -a/-Î
instrumental-comitative		-nat/-nät	-nat/-nät
distributive		-tÎlta/-taltä	-tÎl/-tal
ablative	missing	-oγ/-öγ	-ow/-öw, -oγ/-öγ
abessive	-	-lÎγ/-laγ	-lÎγ/-laγ
comparative	-	-n÷>÷t	-ni>a

5.4 Pseudo-partitives

This subsection deals with the reading (9b), the amount-of partitive or the pseudopartitive.
(9)   a.   "separable part of N that can typically be referred to as N" →
       b.   → "amount of N" (metonymic extension of 9a)

In this subsection, I collect the evidence for the following hypotheses.

(26)   The Linguistic Partitive is more characteristic of pseudopartitive constructions in the Uralic languages that have a linguistic partitive.
(27)   Pseudopartitive constructions are expressed predominantly via juxtaposition in languages that do not have a Linguistic Partitive.

First of all, it is not completely clear at this stage if all Uralic languages have any partitive constructions with the structure N-measure – N-substance. Many Uralic languages express pseudo-partitives with juxtaposition (N and W Sami, Hungarian, Mari, Mordvinian, Komi, and Udmurt, according to Koptjevskaja-Tamm (2001:555). Juxtaposition (pseudo-partitive) is illustrated by a Hungarian example in (28).

(28)   Hungarian

egy   *pohár*   *bor*
det/one   glass[NOM]   wine[NOM]
'a glass of wine'

Estonian has a morphological partitive. Note that the proper partitive relationship is realized by the elative, but the pseudo-partitive (a glass of wine) is realized with the partitive case-marking.

(29)   Estonian
        klaas   ***veini***
        glass[NOM]   wine-PTV
        'a glass of wine'

There are languages where the morphosyntactic encoding of the two types of partitive semantics clearly differs as shown by Koptjevskaja-Tamm (2001). This seems to be the case in Estonian as well. Koptjevskaja-Tamm (2001) contains a detailed typological study on Finnish and Estonian pseudopartitives. The illustration contrasting the two concepts is taken from Finnish. Example (30a) is a partitive nominal constructions (PC) and (30b) is a pseudo-partitive nominal construction (PPC) Koptjevskaja-Tamm (2001).

(30)   a.   *pala*   *tä-stä*   *hyvä-stä*   *kaku-sta*
               bit[NOM]   this-ELA   good-ELA   cake-ELA
               'a bit of this good cake'
     b.   *säkki*   *peruno-ita*
               sack[NOM]   potato-PTV.PL
               'a sack of potatoes'

Not all Uralic languages use case in these expressions and it is not clear if the pseudopartitves are clearly different from the real partitives. Anttila and Fong (2000) discuss Finnish examples where the distinction does not emerge clearly and Tamm (2011b) demonstrates examples where even Anttila's improved account would not work either for the data set of abstract nouns in Estonian. The state of the art in the data research of conventionalized measure structures in temperature in rarer Uralic languages is as follows. Khanti and Udmurt have a juxtaposition of nominative nouns in these constructions. Hungarian does not allow partitives like possessive constructions at all and Estonian realizes a linguistic partitive. The linguistic partitive is possible if the noun measured is linguistically scalar, since it is possible with derivations of *warm* and *cold*, but not with the underived noun *temperature*.

(31)   Khanti, Eszter Ruttkay p.c. email, July 1ˢᵗ , 2010
     a.   *kamən ńǎljaŋ grad*   *iśki*
              outside 40   degree[NOM]   cold[NOM]
              'The outside temperature is 40 below zero.'
     b.   *ńǎljaŋ grad*   *t'emperatura*   *tǎjl*
              40   degree[NOM]   temperature[NOM]   be.3s
              'He has a fever of 40 degrees.'
(32)   Udmurt, Svetlana Edygarova, email, June 28th, 2010
     a.   *temperatura*   *Celsi-ja*   *40*   *gradus*
              temperature[NOM]   c-ADV   40   degree[NOM]

'40 degrees Celsius'

b. *n'yl-don*   *gradus*   *kez'yt/*   *shunyt*
40   degree[NOM]   cold[NOM]/   warm[NOM]
'40 degrees below/above zero'

(33) Komi-Permyak, Larisa Ponomareva, email, July 2nd, 2010

a. *t'emperatura*   *40*   *gradus*   *celsija*
temperature[NOM]   40   degree[NOM]   c-ADV
'40 degrees Celsius'

b. n'ol'das   gradus   ködzyt/   shonyt
40   degree[NOM]   cold[NOM]/   warm[NOM]
'40 degrees below/above zero'

(34) Hungarian

a. *kint*   *negyven*   *fokos*   *meleg/*   *hideg*   *van*
outside 40   degree-adj.suffix   warm[NOM]   cold[NOM]   be.3s
'The outside temperature is 40 above/below zero.'

b. *negyven*   *fokos*   *láza*   *van*
40   degree-adj.suffix   fever[NOM].PX3S   be.3s
'He has a fever of 40 degrees.'

(35) Estonian

a. *viis*   *kraadi*   *sooja*
five[NOM]   degree.PTV   warm.PTV
'plus 5 degrees'

b. *viis*   *kraadi*   *külma*
five[NOM]   degree.PTV   cold.PTV
'minus 5 degrees'

c. *# viis*   *kraadi*   *temperatuuri*
five[NOM]   degree.PTV   temperature.PTV
'5 degrees'

4.5 The partitive concept and aspect

The Hungarian elative is a form in the case inventory of Hungarian that corresponds closely to the Partitive Concept, as illustrated in (10). Bare nouns compare to other Uralic zero marked bare nouns. The following examples illustrate Udmurt (36) and Komi (37) part-of-partitives, the (9a) type, in their embedded environment.

(36) Udmurt: accusative, Partitive Concept, unmarked/accusative opposition

a. *n'an'*   *s'i-i*   *(odig*   *judes)*
bread[ACC]   eat-INF   (one[ACC]   piece[ACC])
'to eat (a piece of) bread.'

b. *n'an'-ez*   *judes*   *s'i-i*
bread- ACC   piece[ACC]   eat-INF
'to eat a piece of this bread.'

c. *n'an'-ez*   *s'i-i*
bread- ACC   eat-INF
'to eat (a piece of) this bread up.'
(Svetlana Edygarova, p.c.)

23

(37)   Komi, elative, Partitive Concept, unmarked/accusative alternation
       a.   *Курчч-и*   *нянь-сьыс*   *тор.*
               bite-1S.PST   bread-ELA   piece[ACC]
               'I have bitten some bread.'
       b.   *Нянь*   *сёй-и.*
               bread [ACC]   eat-1S.PST
               'I was eating bread, I ate some bread.'
       c.   *Сёй-и*   *нянь-сö.*
               eat-1S.PST   bread- ACC.DEF
               'I ate the bread (some of the bread).'
               (Nikolay Kuznetsov, p.c.)

Interaction with the aspectual properties of the clause vary with different partitive uses involving
the verbs that trigger partitive meanings. Example (38) illustrates Hungarian.

(38)   Hungarian
       a.   *Evett*   *a*   *pizzá-ból.*
               eat.PST3S   DEF   pizza-ELA
               'She ate some of the pizza.'
       b.   *Meg-ette*   *a*   *pizzá-t.*
               TELIC-eat. PST3S   DEF   pizza-ACC
               'She ate up the pizza.'
       c.   **Meg-ette*   *a*   *pizzá-ból.*
               TELIC-eat. PST3S   DEF   pizza-ELA
               ('She ate up of the pizza.')
       d.   *Pizzá-t*   *evett.*
               pizza-ACC   eat.PST3S
               'She was eating pizza.' (Hu unbounded)

The partitive yields an unbounded reading for Estonian.

(39)   Estonian
       a.   *Mari*   *sõi*   *(seda)*   *pitsa-t.*
               M[NOM]   eat.PST3S   this.PTV   pizza-PTV
               'Mary was eating (this) pizza.' (Est unbounded, nonquantized)
       b.   *Mari*   *sõi*   *pitsa /*   *%pitsa-t*   *ära.*
               M[NOM]   eat.PST3S   pizza.TOT   pizza-PTV   up
               'Mary ate a pizza (up).' (Est bounded, quantized)

Table 7 summarizes the situation with affectedness and the object cases in the studied languages.

Table 7. Affectedness of the incremental theme and the object case.

24

Incremental theme argument totally affected	Incremental theme argument partially affected
Accusative	ELATIVE (Hu) PARTITIVE (Est) Unmarked (Hu,Kh,U)

The question however is, whether the data in (39) is an instance of the Partitive Concept or the Linguistic Partitive? It is both. The object has partitive marking, so it is a Linguistic Partitive. It is a Partitive Concept, since the meaning extension has come into being by means of metonymy: the disappearance of the pizza is temporally related to the event where the pizza is disappearing. Therefore, the pizza in the event and the temporal evolving of the event itself are related by spatiotemporal contiguity. The boundedness of the event is not determined by the boundedness of the object matter any more in the partitive languages such as Estonian. The loss of the relationship is demonstrated by the combination of the quantized "this pizza", which is bounded, and the partitive case on the noun denoting pizza.

In presentational or existential sentences and certain transitive sentences, the mass or count properties of the argument, as in (40a), is observed to influence the possibility of partitive case encoding.[16] On the basis of typical examples illustrating this regularity, one could argue that in presentational or existential sentences, partitive is possible with mass (abstract, unbounded, or bare plural) nouns. The examples that those scholars would employ would be as presented in the Estonian intransitive sentences in (40a) and as in the transitive sentences in (40b). I have added the semantically unacceptable options with a hash mark.

(40) a.   *Taigna   sees   on   pipar-t   /#sõrmus-t.*
           batter.GEN   in   be-3S pepper-PTV   /ring-PTV
            'There is (some) pepper in the batter.'
           Not possible: 'There is (some/a) ring in the batter.'
     b.   *Mari   sokuta-s   taigna   sisse*
           M[NOM]   manage-PST3S batter.GEN   into
           pipar-t   /#sõrmus-t.
           pepper-PTV   /ring-PTV
           'Mary managed to add (secretly) pepper to the batter.'
           Not possible: 'Mary managed to add a ring.'

Further research has shown that there should be a another subdivision among mass nouns, and that concrete mass nouns belong to just one of these types. Abstract nouns that are also mass nouns can be divided according to their appearance with the partitive marking in the same environment with other, concrete mass nouns, or not. Some abstract mass nouns cannot be marked with the partitive if all other conditions hold equally. The contrast is demonstrated by the nouns *valgus* 'light' versus *pimedus* 'darkness'. In its case-marking behavior, the mass noun *valgus* 'light' patterns

---

[16] See also Erelt et al. 1997, available at http://www.eki.ee/books/ekk09/index.php?p=5&p1=2&id=387 (accessed on 17 November 2012).

with other mass nouns, such as *pipar* 'pepper', but the mass noun *pimedus* 'darkness' does not, patterning with the count noun *sõrmus* 'ring' instead. The contrast is illustrated in transitive and intransitive sentences (41).

(41) Estonian
    a.   *Saali*   *tekki-s*   *valgus-t*   */#pimedus-t.*
            hall.ILL   appear-PST3S light-PTV   darkness-PTV
            'Light/darkness emerged in the hall.'

    b.   *Mari*   *tekita-s*   *saali-s*   *valgus-t*   */#pimedus-t.*
            M[NOM]   create-PST3S hall-INE   light-PTV   /darkness-PTV
            'Mary created light/darkness in the hall.'

The possibility of the partitive is determined by factors that are similar to example (35). In example (35), the linguistic partitive emerges if the noun measured is linguistically scalar. The contrast is observable in the difference between the derivations of *soe* 'warm' and *külm* 'cold', which can be partitive, and the non-derived noun *temperatuur* 'temperature'. In example (41), the difference between the nouns 'light' and 'darkness' consists in the scalar properties of the base adjective, and also the existence of pragmatic standards (see the details in Tamm to appear).

4.6. Cross-categorial cases (CCC) and separative relationships in source cases

4.6.1. Partitives among the source cases as cross-categorial case

This subsection takes a closer look on how separative cases and partitives appear as cross-categorial cases, because having extensive cross-categorial case systems in various levels of development is a particular feature of the Uralic languages. Cross-categorial case refers to the appearance of nominal markers, in particular, case formants, as markers that pertain semantically to verbal categories, such as the TAM categories or negation. The goal of this subsection is to present several points.

- Firstly, Uralic languages are particularly rich in cross-categorial source case and the partitive. There are several strategies, two of which are disussed in connection with the source cases in the cross-categorial case systems.
- Secondly, the partitive developments in the Finnic languages must be seen as an exceptional development among the source cases. The source cases diverge from each other in languages with several source cases in terms of cross-categorial case. Source spatial cases are also different from non-source spatial cases. Especially in the Hungarian aspectual preverb system, the contrast between source and non-source cases is observable.
- Last but not least, the discussion of the non-finites of this subsection is necessary to understand the role of case in the TAM categories. More specifically, it is a necessary introduction in order to move on to the topics of how the TAM categories have developed their current spectrum of meanings in the instance of the Estonian linguistic partitive. The Estonian partitive evidential, discussed in Section 5, is an instance of cross-categorial case.

Unusual TAM marking by nominal case is attested in many languages (Nordlinger and Sadler 2004). Recent research has drawn attention to "verbal" or "versatile" case that appears in

the verbal paradigm (Aikhenvald 2008, Butt 2006, Spencer 2009). Blake (2001) and Butt (2006) belong to the classic literature addressing case that contains instances of cross-categorial case and Aikhenvald (2008) published a journal article dedicated to case that appears on nouns as well as verbs in language typology. Spencer (2009) discusses instances of the phenomenon as "case marking on verbs" (1).

(1)   Quechua
        Rima-y-ta   xalayu-ru-n.
        speak-INF-ACC begin-PRF-3S
        'He began to speak.'
        (Adelaar and Muysken [2004: 226] in Spencer [2009: 189])

According to the author's description, the non-finite verb form is marked with the accusative and it functions as the object of the verb 'begin' in Quechua. This example adds another dimension of cross-categorial case ridden with puzzles — infinitves combining with cases.

The semantic regularities of cases appearing cross-categorially have been discussed in a more detailed account by Aikhenvald (2008) in recent literature. Her term for the phenomenon is *versatile case* (Aikhenvald 2008: 565). It can express temporal, causal and other relationships between clauses, or aspectual and modal meanings within a clause. Versatile case comprises case on various verb forms and falls in three types on the basis of its distributional characteristics: appearing on verb roots, on fully or partially inflected verbs, or on non-finite verbs. Aikhenvald describes versatile case as "chameleon morphemes"; these morphemes can mark different categories and have related but also different meanings. As one instance from her rich typological sample, Aikhenvald provides examples of case on nouns and verbs in Manambu, where the objective-locative case marks a core or oblique argument, as demonstrated in (2). The locative case appears on the verb as well, as on *wukemar* 'forget', adding completivity to the event structure; locative case on a verb triggers the aspectual completive interpretation of 'completely forget'.

(2)   Manambu
        Wun [de-ke-m]   wukemar-e-m
        I he-LK-OBJ/LOC   forget-LK-OBJ/LOC
        'I completely forgot him.'
        (Aikhenvald 2008: 587)

The Manambu case expresses TAM categories; in the Quechua example it is not clear if the accusative marks aspectual inchoativity on the verb or simply the object. Aikhenvald generalizes that core cases tend to express aspectual and modal meanings, while oblique cases tend to be used as clause-linkers.

In addition to attaching to nouns (and in languages with adjective-noun agreement, to adjectives), case in Uralic also attaches to verbs (verb stems), to verbs with a nominalizing suffix, forming infinitives and in-between forms. Some examples of the types of cross-categorial case are listed in (42) in order to introduce in a nutshell the basic types of examples discussed below in more detail.

(42)   Cross categorical case types
            1. CCC attaches to verb stems

- (Hungarian case+verb *be-megy* 'in-go, enter'), or
- Udmurt V+abessive, or
- to verb stems forming a non-finite, such as the Selkup infinitive marker: V+translative.
2. CCC attaches to nominalizations (Udmurt cases V+m+case, V+n+case),
3. CCC appears as a part of non-finites (Finnic, the case formants are part of a morpheme of a non-finite verb)
4. CCC attaches to an argument or adjunct but carries TAM meanings (Finnish aspectual accusative-partitive case alternation, accusative case on temporal adverbials that bound the situation).

In a CCC paradigm, not all nominal cases are cross-categorial; in addition, they are cross-categorial in various ways as specified in (42). However, the Uralic languages rarely combine all types of CCC and have their particular language-specific strategies in using case formatives for expressing the TAM meanings. It is also typical that there is more than one strategy within one language, but across the Uralic languages, the pattern of the strategies does not overlap.

What is important is that the result of combining a partitive or a separative meaning with the meaning of a verb and its argument that is a simple noun with relatively concrete properties, is different from the result if there is a nominalization with its own predicate-argument structure and a meaning linked to abstract events instead of a morphologically simple noun. In this linguistic environment, which is semantically and pragmatically similar to the combinations of adpositions and nominalizations, several TAM meanings may develop; Bybee et al. (1995) discuss for instance how the progressive develops from locative expressions (Tamm 2011a or Ross et al. 2010 can be consulted for the details of the development of the progressive semantics and pragmatics in the Finnic languages).

4.6.2. Rich source case system with asymmetries in combining with the nominalization paradigm, and case on bare verb: Udmurt

The goal of this subsection is to illustrate a stage in the development of semantics that goes beyond encoding only argument relationships in a predicate. The example is from Udmurt, where cases that mark nouns can mark bare verb stems and two types of non-finites or nominalizations. The data presented in Table 8 illustrates the case system in Udmurt.[17] It highlights the source cases and the abessive as they are found on non-derived nouns, and in the forms between verbs and nouns containing -*n*- or -*m*- as bound nominalizing morphemes.

Table 8. Cases in the Udmurt noun (house) and non-finite case paradigms (the verb *go*).

Case	noun+case	verb+n+case	verb+m+case	verb+case
Nominative	s'ik	myn-on	myn-em	
Genitive	s'ik-len	myn-on-len	myn-em-len	
Accusative	s'ik /s'ik-ez	myn-on-ez	myn-em-ez	
Ablative	s'ik-les'	myn-on-les'	myn-em-les'	
Dative	s'ik-ly	myn-on-ly	myn-em-ly	
Adessive	s'ik-len			

28

Instrumental	s'ik-en	myn-on-en	myn-em-en	
Abessive	s'ik-tek	missing	missing	myny-tek
Inessive	s'ik-yn	myn-on-yn	myn-em-yn	
Illative	s'ik-e	myn-on-e	myn-em-e	
Elative	s'ik-ys'(t)	missing	myn-em-ys'	
Terminative	s'ik-oz'	myn-on-oz'	myn-em-oz'	
Egressive	s'ik-ys'en	missing	missing	
Prolative	s'ik-eti			
Approximative	s'ik-lan'			

The source case-marking of nominalizations is relatively uninteresting from the point of view of syntax. Once a verb is nominalized, it can be case-marked as any other argument in the source role. Therefore, one would predict an even distribution of forms all over the nominalizations and non-finites. However, we do not see an even distribution.

In Table 8 illustrating the case system in Udmurt, also the abessive on bare stems are included for illustration of the nature of the phenomenon, in addition to the case system on *n*-nominalizations and on *m*-nominalizations. Although the system is regular, not all cases appear on the two nominalizations, and only one morpheme is cross-categorial in the sense of combining with a verb stem (the abessive, see Tamm to appear, b, 2011c). This demonstrates a system with transparent cross-categorial case, that developes some additional meanings to the argument relationships. Table 1 on Estonian records a more restricted and opaque CCC system, with more TAM meanings.

In sum, Udmurt presents a rich source case system with asymmetries in combining with the nominalization paradigm, where the relationships are transparent, but the paradigm is deficient. The elative source case does not occur with the n-nominalizations, but it is there with the m-nominalizations, while the ablative source case occurs with the n-nominalizations as well as with the m-nominalizations. The abessive, which does not combine with the non-finites. It is also clear that the elative and the illative appear asymmetrically, the elative is missing where the illative is present, showing the possibilities in combining with more abstract meanings. The source-goal asymmetry is the topic of the following subsection as well.

4.6.3. Source-goal asymmetry in cross-categorial case

One of the best examples of cross-categorial case in the aspectual domain is Hungarian verbal particles (preverbs). I illustrate the Hungarian aspectual telicizing particles that have the same origin with the pronominal forms of goal cases INTO (-ba/-be), ONTO (-ra/-re), and TO (-hez/-hoz/-höz) in (4).[18]

(43)   Hungarian
     a.   *Feri*   ***be**-ment*   *az*   *épület-**be**.*
         F[NOM]   into-go.PST.3S DEF   building-INTO
         'Ferenc entered the building.' (into-went into the building)
     b.   *Gábor*   ***rá**-lépett*   *a*   *sajt-**ra**.*
         G[NOM]   onto-step.PST.3S   DEF   cheese-ONTO

---

[18] Surányi (2009) treats several of these examples as incorporated locative adverbials in Hungarian.

'Gábor stepped on cheese.' (on-stepped on the cheese)

    c.   *Gregor Bernadett*   hozzáment   *egy*   *sámánhoz.* [19]
        GB[NOM]   to-go.PST.3S   INDEF shaman-TO
        'Gregor Bernadett married a shaman.' (to-went to a shaman)

The Hungarian stative particles have the form of the adverb or pronominal case forms denoting the location IN, ON, or IN THE VICINITY OF with the verb *marad* 'stay'. The point is that it is not only interesting what there is in the grammatical inventory of a language, but what there isn't. In the triad of stative location preverbs, IN and ON appear with an obligatory argument in the case that corresponds to the preverb, as in (44a), (44b). The form *nála* 'near' that stands for IN THE VICINITY location may appear with the verb *marad* 'stay' (44c), but there is no obligatory argument marked with *-nál/-nél*.

(44)   Hungarian
    a.   *Nikolas*   *megsirat-t-a,*   *hogy* *benn-marad-t*   *a*
        N[NOM]   lament-PST3S.DEF   that in-remain-PST3S   DEF
        verseny-ben.[20]
        competition-INE
        'Nikolas was sad that he remained in the competition.'
        (Literally: in-stayed in the competition)
    b.   *Rajt-a marad-t*   *Thaci-n*   *a*   *szervkereskedelem*
        on-3S remain.PST3S T-SUPERESS   DEF   organ.trafficking[NOM]
        vádja21
        accusation[NOM]-3SPX
        'The accusations of organ trafficking remained on Thaci.'
        (Literally: on-stayed on Thaci.)
    c.   **nála maradt*   *a*   *barátjáinál*
        near-remain-PST3S   DEF   friends-his-competition-NEAR
        'Nikolas was sad that he remained in the competition.'
        (Literally: in-stayed in the competition)

In (45), the separative direction is not realized in the aspectual preverb system. This is something that is paradoxically and unexpectedly missing in the famous Hungarian aspectual preverb system.

(45)   Hungarian
    a..   **ról-jött*   *a*   *tető-ről*
        from.top-of came   DEF   roof-from
        The following content cannot be expressed with these grammatical means: he came down from top of the roof
    b.   **böl-jött*   *a*   *ház-ból*
        from.inside came   DEF   from-house
        The following content cannot be expressed with these grammatical means:

---

[19] http://velvet.hu/celeb/gregor0610/ 05/10/2011 16:12
[20] www.borsonline.hu/news.php?hid=36212 02/10/2011 13:45:28
[21]   http://www.mr1-kossuth.hu/hirek/kulhon/rajta-maradt-thacin-a-szervkereskedelem-vadja.html   02/10/2011 13:45:28

he came out of the house
c.   *től-jött   től-e
    from.the.vicinity came   from-him/her
    The following content cannot be expressed with these grammatical means:
    he came from his place

4.6.4. Source-goal cross-categorial case and the special status of the Linguistic Partitive

Partitives and source cases appear on non-finites in Estonian. Non-finite forms in Estonian frequently originate from case-marked non-finite verb forms, which originally were complements but developed into base predicates of larger predicate complexes. This process resembles the Udmurt paradigm, which is more regular but less grammaticalized. These CCC complexes have developed case-related semantics and TAM meanings in Estonian.

Table 9. The Estonian case system and case in the non-finite system.

case	translation N	example N	example V	translation V
Nominative	book	raamat		
Genitive	of a book	raamatu		
Partitive	(of) a book	raamatu-t	tule-va-t	allegedly, coming
Illative	into the book	raamatu-sse	tule-ma	to come
Inessive	in a book	raamatu-s	tule-ma-s, tulle-s	coming
Elative	from (inside) a book	raamatu-st	tule-ma-st	from coming
Allative	onto a book	raamatu-le		
Adessive	on a book	raamatu-l		
Ablative	from the book	raamatu-lt		
Translative	in(to), as a book	raamatu-ks	tule-ma-ks	in order to come
Terminative	until a book	raamatu-ni		
Essive	as a book	raamatu-na		
Abessive	without a book	raamatu-ta	tule-ma-ta	not having come
Comitative	with a book	raamatu-ga		

The embeddeness of case in the system of non-finites helps understand the role of case in the TAM categories and, more specifically, how the TAM categories have developed their current spectrum of meanings in the instance of the Estonian linguistic partitive. The partitive developments in the Finnic languages must be seen as an exceptional development among the source cases, because of the asymmetry between the source a goal cases in the CCC systems. Moreover, Pajusalu and Orav (2007) have shown that in Estonian, the elative source case is statistically far more rare as part of the non-finite with m-formative compared to the other m-formative spatial cases in non-finites. The Estonian partitive evidential is therefore fairly special and this is discussed in Section 5.

4.7. Summary

After the discussion of this section, the quantificational relationships between the nominal parts of partitives can be presented: between the two nouns in the two Partitive Concepts (Table 10) and the different morphological and syntactic realizations with extended or core meanings (Table 11).

Table 10. Partitive Concepts and the quantification of the nouns in the constructions.

	Part-of-N	Amount-of-N
N quantified	Yes/no	no
Construction quantified	Quantified nonspecifically	Either specific quantity (if amount is specified) or nonspecific quantity (if amount is not specified or non-quantized)
Combined with verbs	Quantizes quantifyable activity	De-quantizes a quantifiable activity

Table 11. Linguistic and Partitive Concepts and the relationship between the two nouns.

	Morphological partitive N1-of-N2	Separatives in languages with morphological partitives	Separatives with languages without a dedicated partitive
Identity of te relationship between the partitives	N1=N2	The relationship is underspecified, but typically, N1# N2	The relationship is underspecified
The form	Case	Elative, ablative, delative, several source/separative adpositions	Another case, one function of which is the partitive, or an adposition, juxtaposition

5. The semantics and pragmatics of the Estonian partitive evidential

5.1. An instance of a Linguistic Partitive

This section presents some instances of the partitive that have already less relation with the Partitive Concept (Section 5.1) because of the epistemic modal and evidential domain. Then the section concentrates on the conceptual content of the Estonian partitive evidential in the light of cross-categorial cases and partitive relationships (Section 5.2).

In most Uralic languages that have partitive, it is semantically motivated, especially in Baltic Finnic. Instead of the "part-of-N" semantics, the semantics of the Finnic partitives is related to other semantic notions, typically, event structural properties or aspect, as in (42) (Ackerman and Moore 2001, Kont 1963, Tveite 2004). Sentences with the partitive object are referred to as non-bounded, irresultative, imperfective, and atelic. Sentences with an accusative (total) object are referred to as bounded, resultative, perfective, and telic. Presently, the Estonian partitive object case appears in sentences that have the semantics of incomplete event realization, unboundedness, atelicity, or imperfective aspect (Kiparsky 1998, Erelt et al. 1993, Metslang 1994, Metslang 2001, Larsson 1984, Lees 2005, Sulkala 1996), irrespective of part-whole relationships or partial

affectedness (Tamm 2012c, 2007, 2004). The partitive marking of incremental themes denoting the part-of the object relationship with the verb, (46a) versus (46b), have given rise to a general aspectual marker of aspectual unboundedness, unrelated to affectedness. Hearing does not affect, let alone, piecewise, or in any possible way, the one who is being heard in the event, as in (46c). The noun phrase 'Thomas' is not an affected object, since it refers to a quantized and specific referent. Therefore, the case marking on the basis of affectedness of the incremental theme has given rise to aspect in general.

(46) a. *Silvi*   *sõ-i*   *pitsa-t*.
          S[NOM]   eat-PST.3S   pizza-PTV
          'Silvia was eating the pizza.'
      b. *Silvi*   *sõ-i*   *pitsa*.
          S[NOM]   eat-PST.3S   pizza.TOT
          'Silvia ate a pizza.'
      c. *Silvi* *kuul-is*   *Toomas-t*.
          S[NOM]hear-PST.3S   T-PTV
          'Silvia heard her.'
      d. *Silvi*   *üllata-s*   *Toomas-**t***.
          S[NOM]   surprise-PST.3S   T-PTV
          'Silvia surprised Tom.'

Another analysis of these examples can be given in terms of epistemic modality and is connected in an intricate way to evidentiality. This analysis integrates the discourse and perceptual properties of the partitive objects (Tamm 2012b). The multiple previous attempts at defining the Finnic partitive can be replaced by an overarching epistemic modal approach. Instead of viewing the Finnic partitive as a matter of encoding definiteness, boundedness, quantization, perfectivity, or telicity oppositions, it is possible to view it as an opposition in terms of having sufficient *evidence* for definiteness, boundedness, quantization, perfectivity, or telicity. This approach explains many unexplained facts about verb classes as well. The epistemic modal feature completely overrules the aspectual feature—previously thought to determine object case encoding—in a whole class of psychological predicates (*üllatama* 'surprise', *ehmatama* 'frighten', *solvama* 'offend'). These psych-verbs denote events with clear temporal endpoints and are, thus, aspectually telic. Therefore, they are predicted to have total objects according to the hypothesis linking partitive to aspect. However, these verbs have partitive objects. An utterance that originally encodes the speaker's aspectual meaning and conveys the endpoint also encodes a lower degree of evidence, thus, epistemic modality. The crucial link between the aspect and evidential categories is instantiated when the hearer overgeneralizes some examples where there is clearly no cognitively reliable immediate evidence of the endpoint (psych-verbs) to more fuzzy cases. The deviant behavior of the psych-verbs can be explained in terms of epistemic modality: it is difficult to have evidence about the endpoint of offending, for instance. In an event of surprising or frightening as well, it is not easy to have evidence when an event reaches its inherent endpoint and how effectively the endpoint is reached. Therefore, the evidence for events that are encoded by psych-verbs is incomplete. The incompleteness of the evidence and not just aspect determines the partitive encoding of the object's case with these verbs.

This analysis is based on the speaker's cognition and inferences combined with the hearer's inferences. The pragmatic and semantic account concentrates on the property of partitive to

encode a speaker's evaluation of evidence and certainty. It is not surprising to find that the partitive evidential expresses a speaker's evaluation about the evidence for the truth of a proposition and certainty about the proposition. However, unexpectedly, this pragmatics can be found in the Estonian core case marking system. More specifically, the data show that the inference about the total objects is that they express total evidence and certainty and that the partitive objects express incomplete evidence and uncertainty.

This explanation can capture some previously unexplained Finnish data as well. Finnish mental epistemic verbs with translative secondary predicates display an object case alternation that cannot be fit into an explanation based on the telicity-atelicity opposition either. The two sentences illustrated below, with *tiedän* 'I know' in (47a) and *luulen* 'I think, I believe' in (47b), are atelic and should, therefore, have partitive object case marking if the telicity hypothesis is correct. However, the use of *tiedän* 'I know' versus *luulen* 'I think, I believe' expresses the beliefs of the speaker about Mary's knowledge about the smartness of George. The degree of the speaker's evidence for George being smart is lower if *luulen* 'I think, I believe' is used, and the degree of evidence is complete if *tiedän* 'I know' is used. The difference in evidence is reflected in the speaker's choice of the accusative case and confirmed by the choice of the matrix verb.

(47) Finnish
  a. *Mari*   *tietää*   *Jüri-n* *viisaa-ksi.*
      M[NOM]   know-PST.3S   J-**ACC** smart-TRANSL
      'Mary knows that George is smart.'
      (Tuomas Huumo, p.c.)
  b. *Mari*   *luulee*   *Jüri-ä*   *viisaa-ksi.*
      M[NOM]   believe-PST.3S J-**PTV**   smart-TRANSL
      'Mary believes that George is smart.'
      (Tuomas Huumo, p.c.)

Mary (the subject) may believe that George is smart in (47a) and (47b), but the belief of the subject does not matter for the object case encoding. What matters is the speaker and her beliefs. The speaker believes that Mary is right in (47a) and George is smart, but that she (the speaker) has insufficient evidence in (47b). In (47b), the evidence may be insufficient, for instance, because (a) the speaker does not trust Mary when Mary says *George is smart*, or *I know that George is smart* or, (b) the speaker trusts Mary, but Mary utters *I think that George is smart (but I do not know for sure)*.

The Finnish examples with the mental epistemic verbs (*tiedän* 'I know' versus *luulen* 'I think, I believe') seem to have lexicalized the epistemic modal distinction in the verbal features. The epistemic modal feature completely overrules the aspectual feature in Finnish object marking in this minimal pair. Several Finnish perception verbs and mental epistemic verbs have accusative objects in Finnish as in (48a), unlike Estonian, which has partitive objects with this group of verbs (48b) (*tuntea/tundma* 'feel' and *nähdä/nägema* 'see'). It is difficult to say if epistemic modality or the categorization of events is involved in this difference. The same Finnish verb may also appear with a partitive object because of aspectual reasons, which means perception as a lexicalized change of state from not feeling to feeling (corresponding to accusative marking, 48a) versus a continuous state of feeling (corresponding to partitive marking, as in 48c).

(48) a.   Finnish

  Tun-si-n *sen* *melkoisen* *selvästi.*[22]
  feel-PST-1S this-**ACC** pretty clearly
  'I could feel it pretty clearly.'

 b. Estonian
  Tund-si-n *seda* *üsna* *selgesti.*
  feel-PST-1S this.PTV pretty clearly
  'I could feel it pretty clearly.'

 c. Finnish
  Osa *minu-sta* *tun-si* *sitä* *tuska-a,*
  part[NOM] I-ELA feel-PST.3S this.PTV anguish-PTV
  mitä *Jacob tun-si.*[23]
  that.PTV J[NOM] feel-PST.3S
  'Part of me felt the kind of pain that Jacob felt.'

In any case the lexicalization pattern involves a whole distinct cognitive area of perception and reasoning in a language, and this fact is too conspicuous to ignore. Table 12 summarizes the correspondence between the speaker's evidence about the endpoint and the object case marking in Estonian.

Table 12. The speaker's evidence about the endpoint and the object case.

The speaker's evidence, certainty	Complete	Incomplete
Object case	total	partitive

5.2. Cross-categorial cases and partitive relationships

Another peculiarity of the Uralic languages-case on non-finite verb forms (cf. Aikhenvald 2008)—has lead to the situation where the partitive semantics has spread to the domain of epistemic modality and evidentiality (the *vat*-form, as in Erelt et al. 2006, Kehayov 2008). As the result of the diachronic development of the partitive case. The Estonian evidential, epistemic modal, aspectual and NP categories share similarities. The overlap between the epistemic modal and evidential categories (Van der Auwera & Plungian 1998) is due to these developments. Aspects of the diachronic development have been dealt with in Larjavaara (1991), Campbell (1991), or Aikhenvald (2004), but only a coherent motivated link between the sematics of the various Uralic partitives will be given in this presentation. Partitive has the following stages of development in Estonian:

1) an NP-stage (Krifka 1992), that is, the stage where the meaning of the partitive pertains to parts of a whole

2) an aspectual stage (Larjavaara 1991, Laanest 1975),

---

[22] http://keskustelu.suomi24.fi/node/9776187 (accessed 18 September 2011).

[23] http://www.vampirelove.net/fanfiction/onnieiseuraa.php (accessed 18 September 2011).

3) epistemic modal and evidential phase (Campbell 1991).

The aspectual partitive marks objects in sentences describing incomplete events, and the partitive evidential appears in sentences that encode incomplete evidence compared to the expectation of complete evidence (Tamm 2009).

The partitive case provides the example of cross-categorial case, which in present-day Estonian preserves the diachronic evolution path from a spatial case to an aspectual case and further, to a marker of epistemic modality and evidentiality. The categories of aspect and evidentiality preserve the basic semantics of the spatial partitive; the example provides an illustration of the shared structure of these categories.

Once the participle was used as an object, the partitive case marking was applied to the participle as well if they modified the object of an atelic verb. As a consequence, epistemic modal meanings emerged in the embedded clauses (Wälchli 2000, Tamm 2008b, 2009). In modern Estonian, there is still considerable variation, but clear tendencies can be noticed as well. With auditory evidence, the partitive form is used (49a), since evidence from hearing is not as reliable as evidence from seeing. Visual evidence is not partial; another nonfinite tends to be used with visual evidence (49b). In independent clauses, the partitive-marked participle began to be used as an indirect evidential (49c). If evidence is not in question, no partitive evidential is used (49d).

(49)   a.   *Mari*   *kuul-is*   *teda*
             M[NOM]   hear-PST.3S   s/he.PTV
             koju   *tule-va-t.*
             home.ILL   come-PERS.PRES.PTCP-PARTITIVE
             'Mary heard him/her come home.'
       b.   *Mari*   *näg-i*   *Jüri-t koju*   *tule-mas.*
             M[NOM]   see-PST.3S   J-PTV home.ILL   come-M_INE
             'Mary saw George coming home.'
       c.   *Mari*   *tule-va-t.*
             M[NOM]   come-PERS.PRES.PTCP-PARTITIVE
             'Allegedly/reportedly, Mary will come.'
       d.   *Mari*   *tule-b.*
             M[NOM]   come-3S
             'Mary will come.'

Table 13 summarizes the correspondences between the completeness of the speaker's evidence or certainty and the presence or absence of the partitive evidential.

Table 13. The completeness of the speaker's evidence or certainty and the partitive evidential.

speaker's evidence, certainty	complete	incomplete
mood/modality	no partitive evidential	partitive evidential

6. Discussion and conclusions

The partitive has stood in the center of descriptive studies for long decades in the Finnic linguistic tradition, and in the recent two decades the phenomena of partitivity have thrilled formal linguists

as well. A recent debate on the comparability of grammatical concepts across languages has involved cognitive, generative, and typological linguistic frameworks. The present paper has united the agendas of these pursuits with the older and more recent studies and analyses of the partitives and partitive like concepts across the Uralic languages, with the aim of creating a suitable basis for further investigations into the cognitive properties of linguistic concepts such as the partitive. One of the intriguing questions concerns how the human prelinguistic perceptual concepts are related to linguistic and language-specific, more refined concepts. The diverse patterns of the Uralic separative and partitive phenomena have been studied in more detail in the present article.

In the hope that further empirical, experimental or language historical methods will confirm the existence of the partitive as a naturally occurring – that is, a perceived and communicated – category, this article has proposed a hypothesis about the cognitive content of the Partitive Concept. It has provided examples from the Uralic languages, and it has discussed some case studies of particular instances of the Linguistic Partitives.

Several Uralic languages have cases that are referred to as the partitive; however, the semantics of these cases diverge from the generally assumed notion of partitive. All Uralic languages can, however, express the concept of part-whole relationships. Therefore, on the basis of examples of one language family, this paper made a distinction between Partitive Concepts that can be expressed by all Uralic languages and the morphological, linguistic partitives.

A characteristic of the Uralic languages is that there are many Source (separative) cases, and this article concentrated on the place of the partitive within the system of source cases. The interaction between TAM, definiteness, and the partitive can be observed in many areas: the aspectual DOM, definiteness effects, telicity, and case on non-finites. The Uralic languages are particularly rich in cross-categorial case, that is, the use of case formants as markers of verbal categories such as TAM categories. There are several processes that lead to case formants developing into TAM categories, two of which are disussed in connection with the source cases in the cross-categorial case systems. The source cases are different from each other in languages with many source cases in terms of cross-categorial case, and also different from non-source spatial cases. Especially, in the Hungarian aspectual preverb system, the contrast between source and non-source cases is visible. Therefore, the partitive developments in the Finnic languages must be seen as an exceptional development among the source cases.

This article has illustrated the current spectrum of TAM meanings in the instance of the Estonian linguistic partitive, in particular, the Estonian partitive evidential. The Estonian partitive case provides an example of cross-categorial case, which in present-day Estonian preserves the diachronic evolutionary path in present-day uses. The present diversity in the meanings and functions allows us to assume a development of a concept from a spatial relation, to an aspectual relation and further, to epistemic modal and evidential interpretations. The categories of aspect and evidentiality preserve the basic semantics of the spatial partitive; the example provides an illustration of the shared structure of these categories.

The Partitive Concept is a heuristic, a comparative concept to enable us to compare variations of it across languages. Additionally the Partitive Concept can be hypothesized to correspond to a prelinguistic perceptual concept. In the descriptions given in the present article, it has fixed "standard" semantic properties, and the Linguistic Partitive cases have developed their specific semantics and pragmatics, or have bleached meanings in each Uralic language where the partitive case appears.

List of abbreviations

ABL	– ablative
ACC	– accusative, or the morphological genitive or nominative as an aspectual object case in Finnish
ACT.PST.PTCP	– active past participle, the *nud*-form
ADE	– adessive
ALL	– allative
CONNEG	– connegative
DA_INF	– *da*-infinitive
DELA	– delative
ELA	– elative
EP_MOD	– epistemic modal
ILL	– illative
INDIR	– indirect
INDIR_EVID	– indirect evidential
INE	– inessive
IPS	– impersonal
IPF	– imperfective
M_INE	– *m*-formative inessive non-finite form (the '*mas*-infinitive')
NEG	– negation (particle)
PRF	– perfective
PS	– personal
PTV	– partitive
PTV_EVID	– partitive evidential
PRS	– present
PRT	– particle
PST	– past
PTCP	– participle
PX	– possessive suffix
SUPERESS	– superessive
TOT	– total (accusative)
TRANSL	– translative (transformative)
IPS.PST.PTCP	– passive/impersonal past participle, the *tud*-participle

See Tamm and Viks (2009) for more details on the conventions.

Evaluations of well-formedness try to classify the judgments by the following signs:

"*"	– grammatically unacceptable, violates a syntactic or a morphological rule
"#"	– semantically unacceptable
"%"	– pragmatically unacceptable, violates a Gricean maxim
"?"	– odd use, rather context-dependent
"??"	– possible, but not likely to be found in native productive texts

Bibliography

Abondolo (ed.) 1998. *The Uralic languages* (Routledge Language Family Descriptions Series). London & New York: Routledge.

Ackerman, Farrell & John Moore. 2001. *Proto-Properties and Grammatical Encoding: A Correspondence Theory of Argument Selection.* Stanford CA: CSLI.

Adelaar, Willem F. H. & Pieter C. Muysken. 2004. *The languages of the Andes* (Cambridge language surveys). Cambridge: Cambridge University Press.

Aikhenvald, Alexandra Y. 2008. Versatile cases. *Journal of Linguistics* 44(3). 565–603.

Anttila, Arto & Vivienne Fong. 2000. The Partitive Constraint in Optimality Theory. *Journal of Semantics* 17. 281–314.

Auwera, Johan Van der & Vladimir Plungian. 1998. Modality's semantic map. *Linguistic Typology* 2. 79–124.

Blake, Barry. 2001. *Case.* Cambridge: Cambridge University Press.

Butt, Miriam. 2006. *Theories of case*. Cambridge: Cambridge University Press.

Bybee, Joan L., Revere Perkins & William Pagliuca. 1994. *The evolution of grammar: Tense, aspect, and modality in the languages of the world*. Chicago & London: University of Chicago Press.

Campbell, Lyle. 1991. Some grammaticalization changes in Estonian and their implications. In Elizabeth C. Traugott & Bernd Heine (eds.), *Approaches to Grammaticalization* (1), 285–299. Amsterdam: John Benjamins.

Carey, Susan. 2009. *The Origin of Concepts.* Oxford: Oxford University Press.

Dahl, Östen & Fred Karlsson. 1975. Verbal aspects and objects marking: a comparison between Finnish and Russian. Logical grammar reports, Göteborg: Department of Linguistics, University of Göteborg.

Denison, Norman. 1957. The Partitive in Finnish. *Annales Academiae scientiarum Fennicae. Series B* 108. Helsinki : Suomalaisen tiedeakatemia.

Erelt, Mati, Helle Metslang & Karl Pajusalu. 2006. Tense and evidentiality in Estonian. In Cornillie, Bert & Nicole Delbecque (eds.), *Topics in Subjectification and Modalization (*Belgian Journal of Linguistics 20), 125–136. Amsterdam: John Benjamins.

Erelt, Mati, Reet Kasik, Helle Metslang, Henno Rajandi, Kristiina Ross, Henn Saari, Kaja Tael & Silvi Vare. 1993. *Eesti Keele Grammatika II. Süntaks. Lisa: Kiri.* [The Grammar of the Estonian Language II. Syntax]. Tallinn: Eesti Teaduste Akadeemia Keele ja Kirjanduse Instituut.

Erelt, Mati, Tiiu Erelt & Kristiina Ross. 1997. *Eesti keele käsiraamat* [The handbook of Estonian]. Tallinn: Eesti Keele Sihtasutus.

Haspelmath, Martin, Matthew S. Dryer, David Gil & Bernard Comrie (eds.) 2005. *The World Atlas of Language Structures*. Oxford: Oxford University Press.

Haspelmath, Martin. 2007. Pre-established categories don't exist: Consequences for language description and typology. *Linguistic Typology* 11. 119–132.

Haspelmath, Martin. 2010. Comparative concepts and descriptive categories in cross-linguistic studies. *Language* 86(3). 663–687.

Heinämäki, Orvokki. 1984. Aspect in Finnish. In Casper de Groot & Hannu Tommola (eds.), *Aspect bound: A voyage into the realm of Germanic, Slavonic and Finno-Ugrian aspectology,* 153–177. Dordrecht & Cinnaminson: Foris.

Helimski, Eugen. 1998a. Nganasan. In Daniel Abondolo (ed.), *The Uralic languages* (Routledge Language Family Descriptions Series), 480–515. London & New York: Routledge.

Helimski, Eugen. 1998b. Selkup. In Daniel Abondolo (ed.), *The Uralic languages* (Routledge

Language Family Descriptions Series). 548–579. London & New York: Routledge.

Hiietam, Katrin. 2003. *Definiteness and grammatical relations in Estonian.* Manchester: University of Manchester PhD dissertation.

Hoeksema, Jack (ed.) 1996. *Partitives. Studies on the Distribution and Meaning of Partitive Expressions.* Berlin: Mouton de Gruyter.

Hoop, Helen de. 1996. *Case configuration and NP interpretation.* New York: Garland.

Hoop, Helen de. 1998. Partitivity. *Glot International* 3 (2). 3–10.

Honti, László. 1998. Ob-Ugrian. In Daniel Abondolo (ed.). *The Uralic languages* (Routledge Language Family Descriptions Series), 327–357. London & New York: Routledge.

Huumo, Tuomas. 2009. Fictive dynamicity, nominal aspect, and the Finnish copulative construction. *Cognitive Linguistics* 20. 43–70.

Huumo and Lindström 2013. This volume. Tuomas Huumo & Silvia Luraghi (eds.). *Partitives. Proceedings of the workshop on Partitives at the SLE 43rd Annual meeting in Vilnius*, 2-5 September 2010. Berlin: Mouton de Gruyter.xx–xx

Huumo, Tuomas & Silvia Luraghi 2013. Introduction. In Tuomas Huumo & Silvia Luraghi (eds.). *Partitives. Proceedings of the workshop on Partitives at the SLE 43rd Annual meeting in Vilnius*, 2-5 September 2010. Berlin: Mouton de Gruyter.

Iggesen, Oliver A. 2008. Number of cases. In Martin Haspelmath, Matthew S. Dryer, David Gil & Bernard Comrie (eds.). *The World Atlas of Language Structures Online* (Chapter 49). Munich: Max Planck Digital Library. http://wals.info/feature/49 (accessed 17 January 2010).

Ikola, Osmo. 1953. Viron ja liivin modus obliquuksen historiaa. *Suomi* 106(4). Helsinki: SKS.

Iva, Sulev. 2007. *Võru kirjakeele sõnamuutmissüsteem* [Inflectional morphology in the Võro Literary Language] (Dissertationes Philologiae Estonicae Universitas Tartuensis 20). Tartu: Tartu Ülikooli Kirjastus. http://dspace.utlib.ee/dspace/bitstream/10062/4860/1/iva_sulev.pdf (accessed 1 January 2010).

Jackendoff, Ray. 1991. Parts and boundaries. *Cognition* 41. 9–45.

Janhunen, Juha. 1998. Samoyedic. In Daniel Abondolo (ed.). *The Uralic languages* (Routledge Language Family Descriptions Series), 457–479. London & New York: Routledge.

Kehayov, Petar. 2008. An Areal-Typological Perspective to Evidentiality: the Cases of the Balkan and Baltic Linguistic Areas. *Dissertationes Linguisticae Universitatis Tartuensis* 10.

Kiparsky, Paul. 2001. Structural case in Finnish. *Lingua* 111. 315–376.

Kiparsky, Paul. 1998. Partitive Case and Aspect. In Butt, Miriam & Willem Geuder (eds.). *The Projection of Arguments,* 265–307. Stanford: CSLI Publications.

Klaas, Birute. 1999. Dependence of the object case on the semantics of the verb in Estonian, Finnish and Lithuanian. In Erelt, Mati (ed.). *Estonian: Typological studies III* (Publications of the department of Estonian of the University of Tartu 11), 47–83. Tartu: Tartu Ülikool.

Kont, Karl. 1963. Käändsõnaline objekt läänemeresoome keeltes. [The declined object in Finnic languages]. *ENSV Teaduste Akadeemia Keele ja Kirjanduse Instituudi uurimused* IX, Tallinn: ENSV Teaduste Akadeemia Keel ja Kirjanduse Instituut.

Koptjevskaja-Tamm, Maria. 2001. 'A piece of the cake' and 'a cup of tea': Partitive and pseudo-partitive nominal constructions in the Circum-Baltic languages. In Östen Dahl & Maria Koptjevskaja-Tamm (eds.). *Circum-Baltic Languages Volume 2. Grammar and Typology* (Studies in Language Companion Series: 55), 523-568. Amsterdam & Philadelphia: John Benjamins Publishing Company.

Kratzer, Angelika. 2004. Telicity and the meaning of objective case. In Jaqueline Gueron & Jacqueline Lecarme (eds.). *The Syntax of Time*, 389–424. Cambridge MA: The MIT Press.

Krifka, Manfred. 1992. Thematic Relations as Links between Nominal Reference and Temporal

Constitution. In Ivan Sag & Anna Szabolcsi (eds.). *Lexical Matters,* 29–53. Stanford: CSLI Publications.

Laanest, A. 1975. *Sissejuhatus läänemeresoome keeltesse.* Tallinn: Eesti NSV Teaduste Akadeemia Keele ja Kirjanduse Instituut.

Larjavaara, Matti. 1991. Aspektuaalisen objektin synty [The birth of the aspectual object]. *Virittäjä.* 372–408.

Larsson, Lars-Gunnar. 1983. Studien zum Partitivgebrauch in den ostseefinnischen Sprachen. *Acta Universitatis Upsaliensis, Studia Uralica et Altaica Upsaliensia* 15. Uppsala: University of Uppsala.

Lees, Aet. 2005. The case of the object in early Estonian and Finnish texts. In Chris Muskovsky (ed.). *Proceedings of the 2004 Conference of the Australian Linguistic Society.*

Luraghi, Silvia. 2013. Partitives and differential marking of core arguments: a cross-linguistic survey. In Tuomas Huumo & Silvia Luraghi (eds.). *Partitives. Proceedings of the workshop on Partitives at the SLE 43rd Annual meeting in Vilnius*, 2-5 September 2010. xxx–xxx. Berlin: Mouton de Gruyter.

Lõhmus, Maarja. 2004. An effect of meaning-breaker: Analysis of the cartoon 'Just shit'. Semiotica 150 (1–4).

Metslang, Helena. 2013. this volume. In Tuomas Huumo & Silvia Luraghi (eds.). *Partitives. Proceedings of the workshop on Partitives at the SLE 43rd Annual meeting in Vilnius*, 2-5 September 2010. xxx–xxx. Berlin: Mouton de Gruyter.

Metslang, Helena. 2007. Two types of aspectual opposition in Estonian duration adverbials? In Danielle Monticelli & Anu Treikelder (eds.), *Aspect in languages and theories: Similarities and differences, in Tartu, 2006* (Studia *Romanica Tartuensia* 6), 77-90. Tartu: University of Tartu Press.

Metslang, Helle. 2001. On the developments of the Estonian aspect: The verbal particle *ära.* In Östen Dahl & Maria Koptjevskaja-Tamm (eds.). *The circum-Baltic languages: typology and contact: grammar and typology,* 443–479. Amsterdam & Philadelphia: John Benjamins.

Metslang, Helle. 1994. Temporal Relations in the Predicate and the Grammatical System of Estonian and Finnish. *Oulun Yliopiston Suomen ja saamen kielen laitoksen tutkimusraportteja* 39. Oulu: Oulun Yliopisto.

Miestamo, Matti, Anne Tamm & Beáta Wagner-Nagy (eds.). 2013. *Negation in Uralic Languages* (Typological Studies in Language XX). Amsterdam & Philadelphia: Benjamins.

Nelson, Diane. 2003. Case and adverbials in Inari Saami and Finnish. *Nordlyd* 31 (4). 708–722.

Nemvalts, Peep. 2000. *Aluse sisu ja vorm. Alusfraasi käändevaheldus tänapäeva eesti kirjakeeles* [The content and form of the subject. The case alternation of the subject phrase in Modern Standard Estonian]. Tallinn: Eesti Keele sihtasutus.

Newmeyer, Frederick J. 2007. Linguistic typology requires crosslinguistic formal categories. *Linguistic Typology* 11, 133–157.

Pärn, Priit. 1987. Cartoon 'Just shit'. In Sirp ja Vasar (Sickle and Hammer), 8/5/1987, p. 16.

Rajandi, Henno & Helle Metslang. 1979. Määratud ja määramata objekt [Defined and undefined object]. *ENSV TA KKI.* Tallinn: Valgus.

Reed, Ann M., 1991. On interpreting partitives. In Donna Jo Napoli & Judy Anne Kegl (eds.), *Bridges between psychology and linguistics: A Swarthmore Festschrift for Lila Gleitman*, 207–223. Hillsdale, NJ: Erlbaum.

Ritter, Ralf-Peter. 1989. Untersuchungen zum Partitiv im Vepsischen (Veröffentlichungen der Societas Uralo-Altaica 26). Wiesbaden: Otto Harrassowitz.

Ross, Kristiina, Heete Sahkai & Anne Tamm. 2010. Finiteness and Non-Finiteness in Finno-Ugric

Languages. Synchronic, Diachronic, and Cross-Modular Issues. *Linguistica Uralica* 46(3). 229–232.

Ruttkay-Miklián, Eszter. 2003. Az alany és a tárgy jelölése a hanti nyelvben (különös tekintettel az ergatív szerkezetre) [The marking of subjects and objects in the Khanty language: focus on ergative structures]. In Beatrix Oszkó & Maria Sipos (eds.), Uráli TÁRGYaló: 2002. január 10-12. (Budapesti Uráli Műhely; 3.), 114–137. Budapest: MTA Nyelvtudományi Intézet.

Kangasmaa-Minn, Eeva. 1998. Mari. In Daniel Abondolo (ed.), *The Uralic languages* (Routledge Language Family Descriptions Series), 219–249. London & New York: Routledge.

Riese, Timothy. 1998. Permian. In Daniel Abondolo (ed.), *The Uralic languages* (Routledge Language Family Descriptions Series), 249–275. London & New York: Routledge.

Salminen, Tapani. 1998. Nenets. In Daniel Abondolo (ed.), *The Uralic languages* (Routledge Language Family Descriptions Series), 516–547. London & New York: Routledge.

Shanskiy, N. M., Bobrova, T. A. 1994. *Etimologicheskij Slovar' Russkogo Jazyka* [Ethymological Dictionary of the Russian Language], Moscow: Prozerpina.

Spencer, Andrew. 2009. *Case as a morphological phenomenon*. In Andrej Malchukov & Andrew Spencer (eds.), *The Oxford Handbook of Case*, 185–199. Oxford: Oxford University Press.

Sulkala, Helena. 1996. Expression of aspectual meanings in Finnish and Estonian. In Mati Erelt (ed.), *Estonian: Typological studies* 1, 165–217. Tartu: Publications of the department of Estonian of the university of Tartu.

Surányi, Balázs. 2009. Incorporated locative adverbials in Hungarian. In Katalin É. Kiss (ed.), *Adverbs and adverbial adjuncts at the interfaces,* 37–72. Berlin & New York: Mouton de Gruyter.

Szimoncsics, Péter. 1998. Kamassian. In Daniel Abondolo (ed.), *The Uralic languages* (Routledge Language Family Descriptions Series), 580–601. London & New York: Routledge.

Talmy, Leonard 1996. Fictive Motion in Language and "Ception". In Paul Bloom, Mary Pederson, Lynn Nadel & Merrill F. Garrett (eds.), *Language and Space*, 211–276. Cambridge, MA & London: MIT Press.

Tamm, Anne. 2013a. Cross-categorial scalar properties explaining Differential Object Marking. *Linguistics: An Interdisciplinary Journal of the Language Sciences*. 51(X). xxx–xxx.

Tamm, Anne. 2013b. Negation in Estonian. In Matti Miestamo, Anne Tamm & Beáta Wagner-Nagy (eds.). *Negation in Uralic Languages* (Typological Studies in Language XX), xxx–xxx. Amsterdam & Philadelphia: Benjamins.

Tamm, Anne. 2013c. Social cognitive and developmental psychology explaining linguistic patterns: Theory of Mind, epistemic vigilance, natural pedagogy, and the typology of Uralic generics, evidentials, and possessives. In Márta Csepregi (ed.), *Uralic Grammar and Context* 3, (xxx–xxx). Budapest: ELTE BTK.

Tamm, Anne. 2012b. Let me introduce the Estonian analytical causatives: the permissive and factitive *laskma* 'let, make, have, allow, permit'. Jaakko Leino & Ruprecht von Waldenfelds (eds.), *Analytical causatives: from mek to laskma*, 247– 289. Munich: Lincom Europa.

Tamm, Anne. 2012b. Partitive objects and the partitive evidential marker -*vat* in Estonian express incomplete evidence. *Finnisch-ugrische Mitteilungen* 35. 97–140.

Tamm, Anne. 2012c. *Scalar Verb Classes. Scalarity, thematic roles, and arguments in the Estonian aspectual lexicon. lexicon* (Biblioteca di Studi di Filologia Moderna 14). Florence: Firenze University Press. <http://www.fupress.com/Archivio/pdf\5326.pdf> (accessed 16 November 2012)

Tamm, Anne. 2011a. Cross-categorial spatial case in the Finnic non-finite system: focus on the

absentive TAM semantics and pragmatics of the Estonian inessive m-formative non-finites. *Linguistics: An Interdisciplinary Journal of the Language Sciences* 49(4). 835–944. (accessed 6 September 2011).

Tamm, Anne. 2011b. Scalarity and dimensionality across categories: Estonian pseudopartitive constructions. *Linguistica Uralica* 47(1). 22–40.

Tamm, Anne. 2011c. The Case of Nincstelenek ('the destitute'): Nounless and Verbless in the Uralic Grammar. In Sándor Csúcs, Nóra Falk, Viktória Tóth & Gábor Zaicz (eds.), *Proceedings of Congressus XI Internationalis Fenno-Ugristarum: Piliscsaba, Hungary, August 9–14, 2010* (Dissertationes symposiorum ad linguisticam), 270–276. Piliscsaba: Reguly Társaság.

Tamm, Anne. 2009. The Estonian partitive evidential: Some notes on the semantic parallels between the aspect and evidential categories. In Lotte Hogeweg, Helen de Hoop & Andrej Malchukov (eds.). *Papers from TAM TAM: Cross-linguistic semantics of Tense, Aspect, and Modality,* 365–401. Amsterdam: Benjamins.

Tamm, Anne. 2008a. Aspect and the Estonian partitive objects: a review of arguments for analysing partitive NPs as instances of incorporation. In Daniele Monticelli & Anu Treikelder (eds.), *Aspect in Languages and Theories: Similarities and Differences in Tartu, 2006* (Studia Romanica Tartuensia 6), 205–226. Tartu: Tartu University Press.

Tamm, Anne. 2008b. Partitive Morphosemantics across Estonian Grammatical Categories, and Case Variation with Equi and Raising. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG08 Conference*. Stanford, CA: CSLI online Publications. 473–493. <http://csli-publications.stanford.edu/LFG/13/papers/lfg08tamm.pdf> (accessed 6 September 2011).

Tamm, Anne. 2007. Perfectivity, telicity and Estonian verbs. *Nordic Journal of Linguistics* 30(2). 229–255.

Tamm, Anne. 2004. *Relations between Estonian aspect, verbs, and case*. PhD dissertation, ELTE, Budapest.
<http://www.dipfilmod-suf.unifi.it/upload/sub/phd_tamm/Tamm_Ch123.PDF>, <http://www.dipfilmod-suf.unifi.it/upload/sub/phd_tamm2/TAMM_Ch4567bibl.PDF> (accessed 6 September 2011).

Tamm, Anne & Ülle Viks. 2009. *Morphology based glossing of Estonian and the Leipzig glossing rules: problems and solutions for Uralic languages*. Poster at the Uralic Typology Days, Tallinn, November 26–27, 2009. Part 2 available online at <http://glossing.pbworks.com/f/TabelViksTamm2009Tallinn2.doc> (accessed 6 September 2011).

Tauli, Valter. 1968. *Totaalobjekt eesti kirjakeeles* [Total object in Estonian]. (Suomalais-ugrilaisen seuran toimituksia 145), 216–224. Helsinki: Suomalais-ugrilainen Seura.

Tauli, Valter. 1980. *Eesti grammatika II. Lauseõpetus* [Estonian grammar II. Syntax.]. Uppsala: Finsk-ugriska institutionen.

Toivonen, Ida. 2003. Inari Sami. Paper presented at LAGB, University of Canterbury, 09 March 2003. http://http-server.carleton.ca/~toivonen/pdf/lagb.pdf (accessed on 22 October 2011).

Tsvetkov, Dmitri. 2008. *Vadja keele grammatika* [Grammar of Votic]. Tallinn: Eesti Keele Sihtasutus.

Tveite, Tor. 2004. *The case of the object in Livonian: A corpus based study* (Castrenianumin toimitteita 62). Helsinki: Finno-Ugrian Society.

Vainikka, Anne & Maling, Joan. 1996. Is partitive case inherent or structural? In Jack Hoeksema (ed.), *Partitives. Studies on the Distribution and Meaning of Partitive Expressions,* 179–208.

Berlin: Mouton de Gruyter.

Vaiss, Natalja. 2004. *Eesti keele aspekti väljendusvõimalusi vene keele taustal.* [Some ways of expressing the Estonian aspect against the background of Russian]. Tallinn: University of Tallinn MA thesis.

Viitso, Tiit-Rein. 1998. Fennic. In Daniel Abondolo (ed.), *The Uralic languages* (Routledge Language Family Descriptions Series), 96–114. London & New York: Routledge.

Wälchli, Bernhard. 2000. Infinite predication as a marker of evidentiality and modality in the languages of the Baltic region. *Sprachtypologie and Universalienforschung* 53(2). 186–210.

Zaicz, Gábor. 1998. Mordva. In Daniel Abondolo (ed.), *The Uralic languages* (Routledge Language Family Descriptions Series), 184–218. London & New York: Routledge.