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Typology of partitives

Abstract: This paper explores the coding patterns of partitives and their functional extensions, based on a convenience sample of 138 languages from 46 families from all macroareas. Partitives are defined as constructions that may express the proportional relation of a subset to a superset (the true-partitive relation). First, it is demonstrated that, crosslinguistically, partitive constructions vary as to their syntactic properties and morphological marking. Syntactically, there is a cline from loose – possibly less grammaticalized – structures to partitives with rigid head-dependent relations and, finally, to morphologically integrated one-word partitives. Furthermore, partitives may be encoded NP-internally (mostly via an adposition) or pronominally. Morphologically, partitives primarily involve markers syncretic with separative, locative or possessive meanings. Finally, a number of languages employ no partitive marker at all. Secondly, these different strategies are not evenly distributed in the globe, with, for example, Eurasia being biased for the separative strategy. Thirdly, on the functional side, partitives may have functions in the following domains in addition to the true-partitive relation: plain quantification (pseudo-partitives), hypothetical events, predicate negation and aspectuality. I claim that the ability to encode plain quantification is the prerequisite for the other domains. Finally, it is argued that there is a universal preference towards syncretism of two semantically distinct concepts: the proportional, true-partitive relation (*some of the books*) and plain quantification (*some books*).

Keywords: aspectuality; negation; partitives; pseudo-partitives; typology; quantification

1 Introduction

The aim of this paper is to explore the crosslinguistic variation of the coding patterns of partitive constructions and functional extensions that partitive constructions are found to attest in different languages.

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Crosslinguistically, partitive constructions vary as to the degree of the internal integration, syntactic type and marking strategy. Partitive constructions may be formed by very diverse markers that range from adpositions and case affixes to verbal clitic particles or partitive pronouns (cf. Budd 2014; Hoeksema 1996b; Koptjevskaja-Tamm 2009, 2001; Luraghi and Kittilä 2014; Tănase-Dogaru 2017) or they may involve no marker at all.

When it comes to functional extensions, only the development of partitives into co-expression markers of predicate negation has received sufficient attention in the typological literature (Arkadiev and Kozhanov, forthcoming; Budd 2014; Miestamo 2014). By contrast, interactions of partitives with grammatical domains such as hypothetical predication, predicate quantification and aspectuality – devoted much attention in formal semantics (e.g., on aspect, cf., *inter alia*, Filip 1999 (especially Ch. 6); Kiparsky 1998; Krifka 1992) – have not been discussed in the typological literature (except Budd 2014). For example, the partitive case in Finnic languages (primarily Finnish) is famous for its various functional facets. In addition to the original and, by now, rare function of encoding the part-whole relation (1a), it has acquired new meanings of indefinite quantity (1a) as well as various clause-level functions such as the co-expression of predicate negation (2), aspectuality, cf. (3a) as opposed to (3b), or even hypothetical events, cf. (4a) (cf. Larsson 1983: 84; de Hoop 2003 among many others):

(1)　　Finnish (Uralic)
　　　　Sö-i-n　　　*puuro-a*
　　　　eat-PST-1SG　　porridge-PART.SG
　　　　a.　'I ate some of the porridge.'
　　　　b.　'I ate some porridge.'
　　　　　(Huumo 2010: 91)

(2)　　Finnish (Uralic)
　　　　En　　　*voidel-lut*　　　　*suks-i-a.*
　　　　NEG.1SG　wax-PST.CONNEG　ski-PL-PART
　　　　'I did not wax (the) skis.'
　　　　(Huumo 2010: 95)

(3)　　Finnish (Uralic)
　　　　a.　*Lyhens-i-n*　　　*hame-tta*
　　　　　　shorten-PST-1SG　skirt-PART.SG
　　　　　　'I was shortening the skirt.' or 'I shortened the skirt [somewhat].'

b. *Lyhens-i-n   hamee-n*
   shorten-PST-1SG   skirt-ACC.SG[1]
   'I made the skirt short.'
   (Huumo 2010: 95)

(4)   Finnish (Uralic)
   a. *Luul-i-n   hän-tä   viisaaksi.*
      think-PST-1SG   3SG-PART   wise
      'I (mistakenly) thought him to be wise.' (but he turned out not to be)
   b. *Luul-i-n   häne-t   viisaaksi.*
      think-PST-1SG   3SG-ACC   wise
      'I thought him to be wise.'
      (Huumo, p.c.)

In this paper, I proceed as follows. Section 2 sets out the main concepts underlying this study and serves, thereby, as a further introduction to partitives with a summary in Section 2.3. I start with purely semantic concepts of *true-partitivity* and *plain quantification* in Section 2.1 and then turn to comparative concepts that are based on both encoding and function in Section 2.2. Here, I introduce and define the following terms: *partitive constructions* (alias *partitives*), *quantifier, restrictor* in Section 2.2.1, *implicit expressions* (Section 2.2.2), *generalized partitives* (Section 2.2.3) and *pseudo-partitives* (Section 2.2.4). Section 3 provides information about the sample and the database. Section 4 describes the constructional variation of partitives: variation in the degree of internal integration of partitive constructions (Section 4.1) and the coding variation (Section 4.2), summarized in Section 4.3. Section 5 is devoted to the areal distribution of marking strategies. Section 6 discusses functional extensions that partitives sometimes have in different languages: pseudo-partitives and plain quantification (Section 6.1), partitives (co-) expressing hypothetical events (Section 6.2), partitives co-expressing predicate negation (Section 6.3) and partitives conditioning event quantification and thus contributing to the aspectual interpretation of the predicate (Section 6.4). Section 6.5 describes the frequency distributions of these functional facets and draws generalizations. Section 7 provides argumentation for a universal trend toward the syncretism of the true-partitive relation and plain quantification. Finally, Section 8 summarizes the results and presents conclusions.

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1 I take the Finnish genitive in the singular and nominative in the plural as a syncretic accusative case, as the personal pronouns – the only ones to distinguish a dedicated accusative case – show the accusative case here.

2 Main concepts: true-partitive relation, implicit expressions, pseudo-partitives, generalized partitives

Unfortunately, the term *partitive* has been used in a broad variety of meanings in the literature, comprising the purely semantic concept of the part-whole relation but also particular markers capable of encoding very diverse functions such as the partitive case in Finnish or the partitive article in Romance. Sometimes "partitive" is even used for any kind of expression in a given language, where another language would have a partitive marker. While it is impossible to adopt all traditional uses, in what follows, I present the terminological framework adopted in this paper which tries to accommodate some of the traditional uses to the extent reasonable for this study. Thus, my definition of partitives, given in (9), is very broad in order to maintain continuity with most of the previous work. It is essential to provide general definitions that are not based on language-specific properties in order to allow for typological comparison (cf. Haspelmath 2018).

I first define the semantic concepts of the *true-partitive relation*, subset and superset (Section 2.1) and then introduce constructional concepts in Section 2.2. Section 2.3 summarizes the main concepts.

2.1 Semantic concepts: true-partitive relation, subset, superset and plain quantification

Consider the following example:

(5)   Lithuanian (Indo-European)
       Vien-as   *jo*   **kolegų**   *pasakojo, kad*…
       one-NOM.SG   3SG.M.GEN   colleague.GEN.PL   tell.PST.3 that
       'One **of his colleagues** said that…'

In (5), the subject participant 'one' is a one-member *subset* of the well-defined *superset* 'his colleagues' – a relation that is coded by the genitive case on the superset NP 'colleagues'. The remainder (*the complement*) contains those 'of his colleagues' who have not participated in the event in (5) (cf., among others, Enç 1991; Koptjevskaja-Tamm 2001, 2009; von Heusinger 2002: 261–62 for these terms). The subset and the superset relate to each other as a part to its whole. This relation renders the concept of a proportion. The same relation may also be found with mass nouns, cf. (6):

(6)   *a cup of the milk in the fridge*

In (6), it is more appropriate to speak about portions instead of sets. However, for the sake of brevity I will only speak about subsets and supersets, subsuming both divisible and non-divisible types of referents. In what follows, I refer to the relation thus defined as to the *true-partitive relation* ("real partitivity" in Selkirk 1977):

(7)   The true-partitive relation
        A true-partitive relation obtains when there is a subset-superset relationship
        between two sets (with mass nouns: two portions) of the same kind.

Thus, in contrast to *plain quantification* found in the English expression *one colleague* or in *some students*, the true-partitive relation involves proportional quantification, i.e., there is a proportion between the quantity of the subset and the quantity of the superset.

    It follows from the definition that in order for a linguistic expression to have the true-partitive meaning, the superset must have a definite specific interpretation (non-generic and non-property-denoting/predicate, non-distributive, and discursively accessible.)[2] This requirement has been referred to as *Partitivity Constraint* in the literature (first observed in Jackendoff 1977; later analyzed and refined in Barwise and Cooper 1981; de Hoop 1997, 2003: 186 following Dowty and Brodie 1984; Hoeksema 1996a: 6; Ionin et al. 2006; Ladusaw 1982; Reed 1989; Tănase-Dogaru 2017; Westerståhl 1985).[3] Accordingly, while (6) is truly partitive, (8) – even though being formally very similar to (6) – is not:

(8)   *a cup of tea*

This is because (8) violates the Partitivity Constraint in that *tea* is indefinite-generic here.

    Furthermore, the definition in (7) comprises only proportional part-whole relations, i.e., those relations in which both the subset and the superset consist of objects of the same kind. For example in (5), the subset 'one colleague of his' belongs to the same kind of objects ('his colleagues') as the superset ('his colleagues'). By contrast, there are other, non-proportional types of the part-whole relation such as *chicken-feet*, *church-door* or *mountain-top* (Hoeksema 1996a: 1) in which the part (*the chicken's feet*) does not consist of objects of the same kind as the

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2 Distributive refers to distributional quantifiers such as *each* in English.

3 There are exceptions to this which have been widely discussed in the semantics literature on partitives, e.g. *that book could belong to one of three people*, where *three people* is indefinite (de Hoop 2003: 183), and various attempts have been made to provide an account for these (cf. de Hoop 1997; Ladusaw 1982). Moreover, certain definite NPs are nevertheless excluded from occurring in the restrictor, such as those headed by *both* or in many instances *all*.

whole (*the chicken*). I refer to these latter relations as to *meronymics* to clearly distinguish them from partitives.[4]

2.2 Constructional concepts

In this section, I define constructional concepts of this study that are defined in terms of both the pattern of encoding and its function: *partitives* (Section 2.2.1), *implicit expressions* (Section 2.2.2), *generalized partitives* (Section 2.2.3) and *pseudo-partitives* (Section 2.2.4). These concepts are comparative concepts (as per Haspelmath 2018).

2.2.1 Partitives, quantifier and restrictor

Languages have different means of encoding the true-partitive relation. Grammatical means that are capable of encoding the true-partitive relation are referred to as *partitive constructions* or simply as *partitives* in this paper:

(9)   Definition of partitives
        Partitives are grammatical constructions that may be used to encode the true-partitive relation without relying on contextual inferences. Partitives obligatory encode (i) a quantifier and (ii) the restrictor. Partitives are often encoded by (iii) a special partitive marker or lexically.

Contextual inferences are understood in the narrow sense, excluding anaphora resolution. Thus, partitive pronouns (such as French *en* 'thereof') *encode* – and do not implicate – the reference to the superset in the same way as, for example, a third-person pronoun is a reduced form of encoding the reference. Moreover, many pronouns may also be used deictically and, on this reading, they should be able to occur in out-of-the-blue contexts with the true-partitive meaning.

    In a true-partitive relation (7), the *quantifier* corresponds to the subset and the *restrictor* to the superset. While subset and superset are terms confined to the true-partitive relation, the *quantifier* and the *restrictor* will be used more generally in this paper for any kind of partitive constructions, including pseudo-partitives (see Section 2.2.4 below).

    Crucially, the partitive construction must be available – even if restrictedly – for encoding the true-partitive relation in the language in order to count as a partitive at all. This is also the original use of the term. While this definition covers most of the expressions that have been referred to as partitives in the literature,

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4 I thank one of the anonymous reviewers for suggesting this term.

there are some exceptions. For example, I have not come across any examples of the partitive case in *-(r)ik* in Basque being used for encoding the true-partitive relation (e.g. in Hualde and Oritz de Urbina 2003, eds.: 124–126) while only the ablative case in Basque (*-etatik*) has the ability to encode the true-partitive relation. Accordingly, the case in *-(r)ik* – traditionally referred to as partitive – is not a partitive in the framework of this paper, whereas the Basque ablative case is.

Having said that, the definition in (9) leaves much space for other aspects of partitives. First, this definition allows partitives to have other meanings in addition to the true-partitive relation (see Section 6). As I argue below (Sections 6–7), languages rarely have dedicated grammatical means that are only capable of encoding the true-partitive relation. For example, the Finnish partitive is capable of expressing many more meanings than just the true-partitive relation. In fact, the latter is even much rarer than the other meanings of the partitive case. Thus, the following corollary to the definition in (9) can be formulated:

(10)   A corollary to the definition in (9)
         In addition to encoding the true-partitive relation, partitive constructions
         may also have other (diachronically) related functions.

2.2.2 Implicit expressions

The definition in (9) excludes *implicit expression of a true-partitive relation* (*implicit partitives* in von Heusinger and Kornfilt 2017; or *covert partitives* in de Hoop 2003: 207), i.e., quantifiers, numerals and other expressions that may occur in a context in which the partitive interpretation is likely (henceforth *implicit expressions*). This is found when the superset may be implicated. For example, in (11), the quantifier phrases *some/three/a few flowers* do not contain the reference to the superset, and the superset can only be inferred given the first clause as *the flowers in the garden*:

(11)   *There are flowers in the garden. Bring me* **some/three/a few flowers**.

Therefore, it can be said that implicit expressions do not themselves encode the true-partitive relation. For example, they are unlikely to be interpreted as such in out-of-the-blue contexts with no presuppositional support. Moreover, it would be counter-intuitive to say that *three* is a grammatical expression to encode the true-partitive relation; nor do *some* or *a few* encode the true-partitive relation in English.[5] Rather, these simply quantify items of a particular kind (henceforth *plain quantification*). While I acknowledge the tradition of subsuming these under

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5 Alternatively, *some* may be considered as being ambiguous by having two allomorphs in English: the stressed partitive allomorph and the unstressed non-partitive one (cf. *stressed indefinites* in Hoeksema 1996a: 2).

partitives as well (*inter alia*, Budd 2014; Crowley 1982; Hoeksema 1996a, b; Mosel and Hovdhaugen 1992; Schneider 2010),[6] I refrain from doing so here in order to have more fine-grained terminological distinctions.

Thus, a typical property of implicit expressions is that they do not encode the reference to the superset (*the flowers in the garden* in (11)) even not in a reduced or a lexicalized form, but only an implicational reference to the kind (*flowers*), thus violating the definition in (9).

In contrast to English *some*, e.g., German *davon* 'thereof' *is* a partitive:

(12)   German (Indo-European)
       a. *Es gibt Blumen im Garten.*
          'There are flowers in the garden.'
       b. *Bring   mir   fünf   davon.*
          bring   me   five   thereof
          'Bring me five of them.'

German *davon* 'thereof' does encode the superset which is resolved either anaphorically, as in (12a-b), or deictically (if (12b) is uttered out of the blue by pointing with a finger to some items). Having said this, indefinite pronouns such as English *some* may come functionally very close to a partitive. For example, the German pronoun *welche* 'some' (homonymous with the interrogative) may indeed be considered to be a partitive as it patterns very much like *davon* (Glaser 1992).

To summarize: In order to analyze an expression as a partitive and not as an implicit expression, two conditions have to be met: (i) there must be an example in which this expression encodes the true-partitive relation without contextual inferences and (ii) the reference to the superset must be encoded in this example, i.e., be retrievable deictically, anaphorically or by a full NP.

In contrast to English, some languages do have dedicated indefinite quantifiers that are partitives lexically because they can only be used in proportional quantification but not in plain quantification. For example, Cora (Uto-Aztecan; Mexico) has dedicated indefinite quantifiers to encode the true-partitive relation, cf. *héiwa* 'many (non-partitive)' vs. *mwi'iká-ka* 'many-ACC (partitive)' (Casad 1984: 265); Haida (Haida) has dedicated, lexical partitive quantifiers such as *t'iij* 'some of' (Enrico 2003: 771 and elsewhere).[7]

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6 According to Budd (2014: 535) there is a distinction between *he* 'some' and *(t)ētahi* 'a/some' followed by the genitive preposition in Maori, in which the latter expresses the true-partitive meaning 'some of'. However, Bauer (1993: 297) provides a series of examples of the non-partitive use of *ētahi* in his grammar as well. So, *ētahi* might not be a dedicated partitive quantifier in Maori.

2.2.3 Generalized partitives

Partitives encoding the true-partitive relation are often binominal, i.e., consisting of two nominals (i.e. nouns, pronouns, pronominal numerals, etc.): the quantifier and the restrictor nominal. However, there are considerable input restrictions on both. The restrictor of a true-partitive is always definite (Partitivity Constraint). The quantifier typically does not admit adjectival quantifiers like *every*, definite and indefinite articles. Personal pronouns are also typically excluded from occurring in the quantifier position (de Hoop 2003: 180 with references).[8] More generally, there is a very strong tendency for the quantifier to be indefinite. Thus, many grammars consulted in this study do not even provide examples of partitives with definite quantifiers (except for superlative constructions relying on partitive constructions). What is more, not only is the quantifier most frequently indefinite but it is also most frequently pronominal (i.e., lacking a full noun). The quantifier position is filled predominantly with *one, some, none* (e.g., *some of them*), *much, many* (e.g., *much of this stuff*) or an indefinite numeral (e.g., *five of the students*) and very rarely by an indefinite full NP.[9] The latter is a very rare situation in which the reference to the ontological kind is given in the quantifier NP:

(13)   Hinuq (Nakh-Daghestanian)
        [ɬor-ɬes   sadaq-za-ɬes]   qʷena uži: rux-iš   mašina-be
        three-ABL   all-OBL.PL-ABL   two.OBL boy.ERG   buy.PST   car-PL
        'Two boys out of three / all bought cars.'
        (Forker 2013:722)

Indeed, a small corpus survey of the Russian partitive *iz nix* [lit.] 'from them' in the oral subcorpus of the Russian National Corpus illustrates this strong bias towards indefiniteness and pronominalization of the quantifier (Table 1). I have analyzed the first 300 hits of this expression. After having excluded all non-partitive instances such as predicates governing the preposition *iz* 'from', 277

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7 It may even be said that the English stressed allomorph of *some* – often referred to as *SOME* as opposed to the unstressed *sm* in the literature – is a dedicated partitive expression (a partitive pronoun) as well if it can be shown that it encodes the true-partitive relation.

8 In split constructions, a focal personal pronoun may appear though, e.g., in Russian: *Iz posetitelej tol'ko ja byl pri den'gax* [lit. from visitors only I was with money] 'Among the visitors, it was only me who had money.'

9 The only seeming exceptions are various nominal quantifiers and measure phrases such as *a cup of, a bottle of, a group of* which, however, demonstrably do not behave in the same way as full nouns in many respects. Strong quantifiers such as *all, both, none* do not occur in the partitive construction in a number of languages, e.g., in Malagasy (Paul 2000: 125).

Table 1: The relative frequency of the definite vs. indefinite subsets to the superset *iz nix* 'from/of them' in the Russian National Corpus (www.ruscorpora.ru), the Spoken subcorpus.

	Indefinite					Definite	
quantifiers[10]	indefinite pronouns[11]	interrog.[12]	numeral	'none'[13]	superlative	other
115 (44%)	80	28	21	18	11	4
Total	262 (**95%**)					15 (**5%**)	

instances of the true-partitive relation were left of which ca. 95% had indefinite quantifiers and 0% quantifiers with a full NP.

This frequency disproportion makes sense from the semantic point of view: a definite, full NP contains exhaustive referential information and its referent is immediately identifiable. Any additional referential information such as the reference to the superset is, therefore, superfluous (cf. ?*these students of my stu-dents*).[14] By contrast, an indefinite referent often needs additional referential support for discourse cohesion. Moreover, pronominal input is also motivated because the superset already contains the information on the kind and resuming it in the subset would not be efficient (cf. ?*some students of my students*).

Crucially, these frequency asymmetries have effects on the grammar of many partitives. Thus, the strong affinity to indefinite, pronominal referents is the main motivation partitives which conventionally leave the quantifier unexpressed, cf. 'some of his colleagues' in (14a) vs. '[some] of his colleagues' in (14b).

(14)   Lithuanian (Indo-European; p. k.)

      a. *Mačiau*   *keletą*   *jo*   *kolegų.*
          see.PST.1SG some.ACC 3SG.GEN colleague.GEN/PART.Pl
          'I saw some of his colleagues.'

      b. *Mačiau*   *jo*   *kolegų.*
          see.PST.1SG 3SG.GEN colleague.GEN/PART.Pl
          'I saw some of his colleagues.'

The frequency asymmetries create the default expectation of the quantifier being an indefinite quantifier used pronominally, which, therefore, need not be expressed. Many languages conventionalize partitives with the quantifier left unexpressed and understood as 'some/any'.[15] I refer to this mono-nominal subtype

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10 Includes: *nekotorye* 'some', *kakie-to* 'some', *neskol'ko* 'some', *každyj* 'each', *mnogie* 'many'.

11 Includes: *odin* 'one', *ljuboj* 'any', *kakoj-to* 'any', *kto-to* 'a person', *drugie* 'others'.

12 Includes: *skol'ko* 'how many', *kotoryj* 'which', *kto* 'who', *kogo* 'whom'.

13 Includes: *nikto* 'no one', *ni odin* 'not any one'.

14 Again, the only exception is superlatives, which feature definite subsets by definition.

of partitives as to *generalized partitives* (other terms used in the literature are *bare partitives* in Hoeksema 1996a: 15; or *independent partitives* in Seržant 2014a, 2014b, 2015a, 2015b). The development of generalized partitives is a very frequent phenomenon found with partitives: 39% (47/122) of all marked partitives in my database allow for leaving the quantifier unexpressed but understood as 'some/any'.[16]

The conventionalized indefinite quantifier 'some/any' entails a number of properties of generalized partitives crosslinguistically. First, generalized partitives typically encode low-individuated referents and, accordingly, tend to be formed out of NPs that themselves typically occur as low-individuated, e.g., mass nouns (such as 'water') or plurals (e.g. 'flowers'). As a consequence, generalized partitives tend to encode referents that are episodic and have a low probability of recurring in the following discourse (Helasvuo 1996 for Finnish; Tveite 2004: 150 for Livonian; Seržant 2012 for Ancient Greek; Seržant 2014a: 267 for Lithuanian; Seržant 2014b: 307–309 for North Russian).

Secondly, another consequence of low individuation is that generalized partitives primarily co-occur with those lexical verbs that cross-linguistically tend to demote or leave out their objects most frequently (in terms of type and token frequency), e.g., via antipassives. These are verbs such as 'eat', 'drink', 'hear' or 'read' (Næss 2007: 127; Seržant et al. forthc). These verbs typically constitute the core of those verbs that allow for partitive objects. Thus, if partitives are not very productive in a language, then it is these verbs that are most likely to be found with partitives. For example, the partitive use of the ablative case in Mordvin languages (the separative strategy) is not very productive (if compared to the related Finnish, for example). It is these verbs that are found with the partitive ablative objects in Mordvin but not with verbs that do not tend to demote their objects, such as 'kill' or 'open'. In other languages, the latter are primarily found with partitives that have predicate-level functions (Sections 6.2–6.4).

Generalized partitives, once conventionalized, may develop into a category in its own right, often having functional facets that are not found with partitives with an explicit quantifier. For example, generalized partitives may compete with other strategies of argument marking, yielding a special subtype of differential-argument-marking systems (cf. Witzlack-Makarevich and Seržant 2018: 15–16). Notably, in this role, generalized partitives fail to differentiate between A, S and P and mark all three roles alike. For example, the partitive prefix/clitic ʔa'-/aa- in Tlingit (Athabaskan-Eyak-Tlingit) can replace subject and object prefixes (Leer 1991: 123–124; though see Crippen 2012: 327), and similarly the partitive

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15 Note that indefinite referents are frequently left unexpressed cross-linguistically, which is a phenomenon *sui generis* not confined to partitives only. However, once quantifier-less partitives (i.e., *generalized partitives* below) have developed, they may undergo pathways that are not found with indefinite pronouns.

16 Unmarked partitives (Section 4.2.2.5) are excluded.

pronouns in Eibela (Bosavi) do not distinguish between all three roles. Armenian (Indo-European) may have partitive-ablative intransitive subjects and transitive objects, thus S=P (Dum-Tragut 2009: 313). Furthermore, a number of Finnic varieties occasionally allow all three roles to be coded by the partitive case, i.e., some A's and S's and nearly all P's (Huumo 2018; Koptjevskaja-Tamm and Wälchli 2001: 658; Lytkin et al. 1975: 108; Seržant 2015a: 396). Accordingly, the following cline of preference obtains from the least likely on the left:[17]

(15)　　 A < S < P

It is the inherently indefinite meaning of generalized partitives that reduces compatibility of generalized partitives with A and partly with S, since the former but sometimes also the latter have a strong preference for definite inputs (cf. Comrie 1981: 128; Croft 1988; Dahl 2000: 50). Moreover, generalized partitives have a considerable overall effect on the semantic transitivity of the hosting clause (cf. Næss 2004, 2007). To this end, partitives in the P slot come functionally – and sometimes even morphologically (when incorporating a partitive pronoun or a quantifier) – very close to antipassives (cf. e.g., the partitive-like meaning facets of the antipassive in Sochiapan (Otomanguean; Mexico) in Foris 2000: 285). In some languages, the effect on transitivity is even rendered morphologically. For example, in Apma, the partitive marker *-te* – used in (16b) as a pseudo-partitive (Section 2.2.4) – blocks the transitivity marker -e that is otherwise obligatory in this language, cf. (16a):

(16)　　 Apma (Austronesian)
　　　　 a.　*Te*　　　*gel-e*　　*val?*
　　　　　　 3SG.PFV　buy-TR　house
　　　　　　 'Did he buy the house?'
　　　　 b.　*Te*　　　*gel-(*e)=te*　　*val?*
　　　　　　 3SG.PFV　buy-*TR-PART　house
　　　　　　 'Did he buy any/some house?'
　　　　　　 (Schneider 2010: 164)

To summarize, generalized partitives are a subtype of partitives that may exhibit properties that are not found with the corresponding partitives with an explicit quantifier.

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17 Quite rarely, generalized partitives may also occur in other syntactic positions as well. For example, Ancient Greek allows generalized partitives to occur in syntactic positions that are otherwise occupied by non-structural accusatives or datives (Seržant 2012: 196–197).

2.2.4 Pseudo-partitives

While the semantic concept of the true-partitive relation necessarily involves two distinct sets or portions, partitives may sometimes also express quantification of just one single set or a portion:

(17)   *Yesterday I had a **cup of tea.***

(18)   *Yesterday I had **a cup of the tea that you made for me.***

(17) is a construction that morphologically – but not necessarily syntactically[18] – coincides with a construction that codes the true-partitive relation in English as in (18). However, no true-partitive relation obtains in (17) because there is no clearly defined superset in the restrictor position. Instead, one finds a kind-referring expression *tea*, which only provides the reference to the ontological kind of substance in the cup but not to a particular referent.

　　With a kind-referring expression, neither the complement nor the superset can be defined in terms of sets or portions. Accordingly, (17) is semantically a plain measure phrase. However, it is formally somewhat more complex than a plain measure phrase like *much tea* because it involves the partitive marker *of*. Measure phrases such as (17) have been referred to as *pseudo-partitives* following Selkirk (1977), e.g., in Koptjevskaja-Tamm (2001, 2009).

(19)   Definition of pseudo-partitive constructions
         A pseudo-partitive construction (abbreviated: a pseudo-partitive) is a partitive construction with no specific superset in the restrictor.

While the true-partitive relation implies proportional quantification, pseudo-partitives denote plain quantification such as amounts (*a group of people*), measures (*a cup of tea*) or quantities (*a lot of people, a majority of people*) of particular kinds (*people, tea*).[19] Therefore, pseudo-partitives are sometimes referred to as *quantitative partitives* (e.g., Ihsane 2013). Accordingly, pseudo-partitives do not encode a relation between two referents but rather encode just one referent that is quantified or measured. Semantically pseudo-partitives pattern with simple measure or quantifier phrases such as *many people* in English or *eine Gruppe Touristen* (lit. 'a group tourists') 'a group of tourists' in German and tend to reduce

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18 Selkirk (1977) puts forward syntactic tests which show that there is also a difference in the syntactic properties between true partitives and pseudo-partitives, such as the possibility of extraction of the head NP with partitives but not with pseudo-partitives.

19 Pseudo-partitives may be subdivided into further subclasses (Koptjevskaja-Tamm 2001).

their original syntactic structure of one NP embedded into another NP towards just one NP (see Selkirk 1977 on English; de Hoop 2003 on Dutch).

In what follows, I make two amendments to the traditional use of the notion pseudo-partitive in the literature. First (i), I argue against treating it as a purely semantic notion with no regard to structural criteria. Second (ii), I argue that pseudo-partitives, like partitives expressing the true-partitive relation, may also occur not only with an explicit quantifier but also without the quantifier, i.e., as *generalized pseudo-partitives*.

As for (i), there is a tradition to extend the notion of pseudo-partitives to include any kind of measure phrases, including those that have nothing to do with partitives in the language in question. For example, *Glas Wein* (lit. 'glass wine') 'glass of wine' in German is a pseudo-partitive according to some researchers (e.g., de Hoop 2003: 192; Koptjevskaja-Tamm 2009, 2001; Tănase-Dogaru 2017) while it is not a pseudo-partitive in the terminology adopted in this paper. The reason is that such an extension of a structural-semantic term into a purely semantic notion unnecessarily overgeneralizes the original term of Selkirk (1977), making it synonymous with the more transparent term *measure phrase*, or *quantifier phrase* for that matter. Moreover, this conceptual extension also produces confusion in that a *glass of wine* in English can no longer be terminologically distinguished from *Glas Wein* in German despite the fact that these two involve morphologically and syntactically different sorts of constructions.

Selkirk (1977) made the important discovery that a *glass of wine* in English – although morphologically similar to the expression of the true-partitive relation in English (with its head and dependent NPs) – patterns syntactically (and semantically) like one NP in many respects. It is in this sense that the term *pseudo-partitive* is justified for the English expression *a glass of wine*. The latter is indeed a seeming – hence "pseudo" – partitive. By contrast, the German *Glas Wein* is straightforwardly analyzable as one NP and has no structural, semantic or morphological affinity to true-partitives in German whatsoever. The latter are encoded by means of the preposition *von* 'from' (e.g., *viele von ihnen* 'many of them') or with the genitive case (e.g. *einer meiner Studenten* 'one of my (GEN) students'). Its only relation to partitives is based on the fact that *Glas Wein* is a measure phrase that may be translated by a partitive-like expression in some other languages including English.

Another problem is that if pseudo-partitive is taken as a purely semantic notion, then one might misleadingly conclude that, for example, *much wine* in English is a pseudo-partitive because it is translated with a partitive-like construction into Russian (with the genitive originally stemming from the possessive partitive strategy) or Basque (with the partitive case) and because it is synonymous with the pseudo-partitive *a lot of wine* in English. This purely semantic use of the term *pseudo-partitive* is also unfortunate for the description of the diachronic process by which true-partitives first develop into pseudo-partitives and only after

that into plain quantifier phrases (Seržant, submitted). I conclude that the purely semantic use of the term *pseudo-partitives* is ill-advised and, instead, structural affinity to partitives must be part of the definition of pseudo-partitives (19):[20]

(20)   A corollary of definitions (9) and (19)
         Pseudo-partitives are only found if they exploit the grammatical means that,
         at the same time, may also be used to encode the true-partitive relation in
         the language.

As for (ii), another important aspect of pseudo-partitives is that there are also *generalized pseudo-partitives*, i.e., pseudo-partitives that occur without an explicit head quantifier. Traditionally, only pseudo-partitives with an explicit, "nouny" quantifier or a measure phrase such as *a group of, a bunch of, a cup of, a bottle of,* etc. were considered pseudo-partitives (*inter alia*, Koptjevskaja-Tamm 2001, 2009). However, similar to partitives with explicit quantifiers (21a), pseudo-partitives may also occur as generalized partitives (21b), the only difference being the presence (21a) vs. absence (21b) of the quantifier:

(21)   Russian (Indo-European)
         a. *Voz'mi   nemnogo   /   gorst'   konfet*
             take.IPV   some   /   handful   candy.GEN(=PART).PL
             'Take some / a handful of candies!'
         b. *Voz'mi   konfet*
             take.IPV   candy.GEN(=PART).PL
             'Take [some] candies!'

Crucially, neither (21a) nor (21b) represents an instance of the true-partitive relation because the restrictor NP 'candies' is indefinite generic; contrast (21) with (22):

(22)   Russian (Indo-European)
         a. *Voz'mi   nemnogo   von   tex   konfet*
             take.IPV   some   DEICTIC DEM.GEN(=PART).PL   candy.GEN(=PART).PL
             'Take some of those candies there!'
         b. *Voz'mi   von   tex   konfet*
             take.IPV   DEICTIC DEM.GEN(=PART).PL   candy.GEN(=PART).PL
             'Take some of those candies there!'

I conclude that both (21a) and (21b) are pseudo-partitives according to the definition in (19).

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20 Instead, the more traditional term *measure phrase* should be used for the constructions of the type *a glass of wine* or *a packet of eggs*. Then, one can say that some measure phrases are coded by pseudo-partitive constructions (e.g., in English *glass of wine*) while other measure phrases resort to the construction that is generally used for plain quantification in the language (e.g., in German *Glas Wein*).

2.3 Summarizing the main concepts

I summarize the main concepts of this paper. The definitional property of partitives is their ability to encode the true-partitive relation (9), which does not mean that partitives always have to express the true-partitive relation only (10). In fact, such a narrow type of partitives is not so frequent crosslinguistically. Furthermore, I have argued that the distinction between explicit-quantifier partitives vs. generalized partitives is orthogonal to the distinction between the true-partitive vs. pseudo-partitive usage and, in principle, all four combinations are possible: Examples (21a) and (22b) are partitives with an explicit quantifier. The partitive in (22b) encodes the true-partitive relation, the partitive in (21a) is a pseudo-partitive (encoding plain quantification). In parallel, examples (21a) and (22b) are *generalized partitives*. I summarize this in Table 2.

Table 2: Ontology of partitives.

	Partitives	
	Encoding the true-partitive relation	**Pseudo-partitive**
head quantifier	*the quantifier and the restrictor are encoded*	
generalized partitive	*only the restrictor is encoded*	

3 The data

The discussion in the remainder of this paper is based on a database consisting of 171 partitives. Each partitive has been tagged along the following variables: *language* of attestation, *language family*, macroarea, syntactic *type*, marking *strategy, dedicated* partitive and the ability to pattern as a *pseudo-partitive*.

The variable *syntactic type* contains the basic syntactic information about the locus of the partitive marking and may have the following two values: *NP-internal* encoding (adpositions and possessive indexes) and *pronominal* encoding (partitive pronouns or quantifiers).

The variable marking *strategy* contains the information about the morphological marker of each partitive and may have the following values: *possessive, separative, unmarked, locative* and *unclear*. Note that, strictly speaking, the value *unmarked* is both a marking strategy (zero morphological marking) and a syntactic type (juxtaposition).

Finally, whether a partitive marking is *dedicated* (i.e., signifying partitive functions only) or whether a partitive may also pattern as a *pseudo-partitive* has been tagged with just *yes* or *no*.

The database (published in Seržant 2020) was created on the basis of a convenience sample of partitive expressions covering 138 languages (Figure 1). The sample is biased toward languages of Eurasia (48% of the entries, 82/171). The data were collected from grammars that have sections devoted to partitives and, in a few cases, by searching for the relevant examples in the grammars (if the grammar lacked such a section or the section was not informative enough). Originally, many more grammars were consulted but the final selection ended up with 138 languages because many grammars were excluded as they did not provide sufficient information. In this sense it is a convenience sample. The 138 languages represent 46 families from all six macroareas.

There are somewhat more entries (171) than languages (138) because one language may have up to three different partitive constructions and thus entries. Lithuanian, for instance, attests two partitives: along with the possessive strategy (seen in (5) above), there are partitives based on the separative strategy with the preposition *iš* 'from'. The two partitives are used somewhat differently. For example, the separative strategy of Lithuanian cannot be used as a pseudo-partitive while the possessive strategy can. Another example of multiple entries for one language is the partitive marker *de* for the NP-internal syntactic type and the partitive pronoun *en* 'thereof' (the pronominal type) in French (see Section 4.2.1 below).

Figure 1: The 138 languages of the sample.

Not all examples that were translated with the English partitive *(out) of* were taken into account. For example, *the two of us, both of them* (often just rendering the respective dual forms), *none of us* or *all of us* were not taken into consideration. The motivation behind this decision was to exclude examples which seem to be partitives just due to the restrictions on numeral and quantifier modifiers in English translations.

Furthermore, in order to distinguish between implicit expressions such as *some flowers* in (11) and unmarked partitives (Section 4.2.2.5), only examples with the supersets explicitly marked as definite (pronouns, demonstratives, etc.) were considered as evidence of an unmarked partitive.

4 Constructional variation

In what follows, I present a systematic overview of different partitive constructions. I first discuss the variation in the degree of internal integration of partitive constructions (not included into the database) in Section 4.1 and then turn to the coding variation in Section 4.2.[21]

4.1 Degree of internal integration of the quantifier and the restrictor

From the semantic point of view, a true partitive requires at least two referents that may not be identical: the superset and the subset referent. Consequently, many languages map these two referents – iconically – into two interdependent constituents: one for the subset (*some* in (23)), patterning as the head, and one for the superset referent (*these students* in (23)), patterning as the dependent. This is the situation found in many European languages, for example, in English:

(23)   *some of these students*

However, languages vary considerably in this respect. Even in English, the two constituents can be split (Hoeksema 1996a: 6), representing thus a somewhat looser syntactic integration:

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21 Languages vary not only in terms of syntactic integration of the quantifier and the restrictor (Section 4.1), or in the variation of the marking strategy discussed in Section 4.2, but also in many other relevant respects such as the linear positions of the restrictor and the quantifier. For reasons of space, these cannot be discussed here.

(24)　　*Of the students, at least ten were drunk.*

Optional extraposition of the restrictor NP is also found elsewhere, e.g., in Ancient Greek, Yadu (Qiangic, Sino-Tibetan; LaPolla and Huang 2003: 101), Punjabi (Indo-European; Bhatia 1993: 189), Hinuq (Forker 2013: 723) or Lezgian (Nakh-Daghestanian; Haspelmath 1993: 97 ex. 195).

　　　Moreover, in some languages, partitives may be expressed just by topicalizing the restrictor, e.g., in Jalkunan:[22]

(25)　　Jalkunan (Mande)
　　　　[sìgì-sèè　　　　mɛ́ʔɛ̄-nà-à^n　　　búʔú-nú]　zàkî̄　fɔ̄^{n}
　　　　[song-sing.NMLZ　person-NOM-PL　all-NOM]　Z　　　better
　　　　'(Out of) all the singers, Zaki is better (=the best).'
　　　　(Heath 2017: 262)

Partitives relying on topicalization of the restrictor NP represent rather loose structures with no strict syntactic dependency and integration, e.g., in Hinuq (Nakh-Daghestanian) (Forker 2013: 723). Examples in (26)–(29) illustrate this:

(26)　　Syer (Atlantic-Congo)
　　　　[mɛ̀　pí　plŏ̀òb　　yìrɛ̀　làŋ　wò],　yɛ̆　　plàà　dà wŏ̀ŋɛ̃́
　　　　[but　DEF　children　PRT　in　　PRT]　2PLPRF　INDEF　put European
　　　　sɛ̀bɛ́　　kẽde lã̀ŋ…
　　　　writing　route in
　　　　'But, among the children themselves, have you let some embark on the European school system (lit.: put into the route of European writing)…'
　　　　(Dombrowsky-Hahn 2015: 299)

(27)　　Humburi (Songhay)
　　　　[háns-èy-nóŋ　　gà:]　í-fó:　　　nèy　　　nàmà
　　　　[dog-DEF.PL-2SG　in]　ABS-one　　1SG.OBJ　bite
　　　　'One of your dogs bit me.' (lit. "in your dogs, one bit me")
　　　　(Heath 2007: Section 5.4.10)

(28)　　Japanese (Japonic)
　　　　[Tyabudai-no　　asi]-wa ip-pon　　torete ita
　　　　table-GEN　　　leg-TOP one-CLF　　missing
　　　　'One of the portable table's legs was missing.'
　　　　(adapted from Kim 1995: 226)

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22 Only those superlatives have been taken into account in this study which were based on partitives morphologically.

In Jamsay, the subset NP even has to resume the kind of entities from the superset, which is a strong indication of the lack of any syntactic dependency relation between the two:

(29) Jamsay (Dogon)
  gùgùn   núŋò mà gǎnǹ, gùgûn   nù:yn ɛ́wɛ́-ỳ
  watermelon DEM POSS between watermelon five buy.IMPF-1PL
  'We'll buy five of those watermelons.' (lit. 'Among those watermelons, we'll buy five watermelons.')
  (Heath 2008: 254)

By contrast, given that both the superset and the subset belong to the same kind and the subset referent is referentially anchored in the superset referent, some other languages have partitive expressions consisting of just one phrase. Thus, in Syer, the indefiniteness marker – also meaning 'some' – if added to a definite expression yields the true-partitive relation both with count and mass nouns:

(30) Syer (Atlantic-Congo)
  mɛ̀   wò čĕ-plȁà   sɔ̀   nìwurȕ.
  cons our woman-indef marry   even
  '… and even married some of our women.'
  (Dombrowsky-Hahn 2015: 299)

Similarly, the indefinite pronoun *sekin* 'some' in Huasteca Nahuatl may just adjoin to the inherently definite personal pronoun in order to encode the true-partitive relation (the connector/relativizer *tlen* may be dropped)[23]:

(31) Huasteca Nahuatl (Uto-Aztecan)
  sekin (tlen)   *imowanti*
  some (REL)   2PL
  'some of you'
  (Beller and Beller 1979: 251)

While the true-partitive relation is expressed by a single phrase in (30) or (31), it can also be expressed just by a single word:

(32) Ute (Uto-Aztecan)
  máamachi-u-a-tɨ(-mɨ)
  woman-PL-POSS-NMLZ(-ANIMATE.PL)
  'one (some) of the women'
  (Givón 2011: 99)

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23 Note that the relativizer *tlen* need not be genuine in the partitive construction but due to the impact of Spanish (cf. Hill and Hill 1986: 292; Kurt Malcher, p.c.).

(33)   Dhofari Arabic (Afroasiatic)
           baʕḏ̣-hum
           some-3PL
           'some of them'
           (Davey 2016: 102)

(34)   Gitxsan (Tsimshian) (Bicevskis et al. 2017: 323)
           hlag̲ats'uu-diit
           some-3PL
           'some of them', 'others of them'
           (Bicevskis et al. 2017: 323)

There is thus quite a lot of variation in the degree of integration of the restrictor with the quantifier from rather loose syntactic relation under extraposition to highly integrated, one-word expressions.

4.2 Coding variation of partitives

In this section, I explore the coding patterns to mark partitive constructions as well as their areal biases along two variables: syntactic *type* (Section 4.2.1) and marking *strategies* (Section 4.2.2). Table 3 presents the overview.

4.2.1 Syntactic types

The first variable is the syntactic *type*, i.e., whether partitives are encoded *NP-internally* or *pronominally*. Note that, if the partitive construction is morphologically marked by zero (Section 4.2.2.5), one can also speak about the third syntactic type of partitive constructions, i.e., *juxtaposition*.

     NP-internal markers are primarily flags (adpositions and case inflection) but also, rarely, possessive indexes. For example, in (35), the ablative case marker *-duk* is an NP-internal partitive marker:

Table 3: Coding variation of partitives.

Type	Strategy				
NP-internal	possessive	separative	locative	unmarked	other
pronominal	possessive	separative	locative	unmarked	other

(35)   Evenki (Tungusic)
        Bi   ēkun:ma-da   tari-l-duk   d'eptile-1-duk
        1SG   anything-ACC   that-PL-**ABL(=PART)**   food-PL-**ABL(=PART)**
        e-che-v   gara.
        NEG-PST-1SG   take
        'I took nothing of that food.'
        (Nedyalkov 1994: 26)

The second syntactic type, i.e. the *pronominal* type, comprises two different subtypes, which, however, are grouped together here for practical reasons. Their common property is their position: in contrast to the NP-internal partitive markers, partitive pronominals occur predominantly outside NPs. In most of the cases, these are highly integrated into the verbal complex, sometimes even phonetically, i.e., via cliticization. This is the case in many Bantu languages in which partitives are encoded by means of class markers (classes 16–18) that otherwise index locations:

(36)   Oshikwanyama (Atlantic-Congo, Bantu)
        Opún'   óu-leke,   ito-kúfá=mo?
        be   14-candy   NEG.PRS.2SG-take=**LOC(=PART)**
        'There is candy, why don't you take **some**?'
        (Halme-Berneking 2017: 147)

(37)   Luganda (Atlantic-Congo, Bantu)
        Aguzee-ko   bi-satu
        3SG.buy.PST-**PART**   CL-three
        'He has bought three of them.'
        (Ashton et al. 1954: 420)

The pronominal type combines the following subtypes: *partitive pronouns, partitive quantifiers* and *partitive particles*. The first two are lexically marked partitives. However, there is an important distinction between the two: only partitive pronouns pronominalize the superset and thus have the meaning 'of them/of it', cf. German *davon* 'of it/them'. By contrast, partitive quantifiers have the meaning 'some of', 'a few of' and the superset has to be expressed by an NP. Partitive particles, in turn, behave very much like partitive quantifiers, although they do not originate from quantifiers. I discuss partitive pronouns and quantifiers in more detail.

Partitive pronouns often carry no partitive marking that is found outside the pronominal paradigm in the language, and may be considered as being lexically marked as partitives. For example, there is the partitive pronoun *en* in French

(cf. Ihsane 2013), *ne* in Italian, *er* in Dutch and different pronouns in German dialects (cf. Strobel and Glaser 2019) – all can pronominalize only third-person supersets:

(38)   French
    J   *'en*   *ai*   *vu*   *deux*
    1SG   **PART** AUX.1SG see.NMLZ two
    'I have seen two of them.'
    (adapted from Ihsane 2013: 241)

Partitive pronouns are also found outside of Europe, in less familiar languages. For example, there is a clitic third-person partitive pronoun *-i'ij* in Itzaj or *aa* in Tlingit:

(39)   Itzaj (Mayan)
    Yan   *in-jan-t-ik-i'ij?*
    OBLIG   1SG.A-eat-TRN-IIS-PART
    'Do I have to eat some of this?'
    (Hofling 2000: 251)

In contrast to French *en* or Dutch *er*, which are inherently third person only, some languages have partitive pronouns that may occur in all three persons. In Eibela, there is even a whole set of partitive pronouns inflected for person: 1st *niːjɛː*, 2nd *giːjɛː*, 3rd animate *iːjɛː* (Aiton 2016: 117). These are evidently derived from the plural forms of the respective persons by adding the marker *-ːjɛː* (homonymous with a locative marker). Thus, the first person *niˑjɛː* can be analyzed as 1PL-LOC(=PART). These pronouns may only be used in the subject or in the object slot in this language:

(40)   Eibela (Bosavi; Papua New-Guinea)
    gɛːsa *jɛːniba* *kowaːbo* ***iːjɛː***   *ɛːna:* *dɛː* *giːjɛː*   *hɛnɛ sɛnɛ=joːboː*
    name   name   name   3.**PART** DEM fire build.fire DUR stay.PST=INF
    'Gisa, Jennifer, and Kowaːbo, some of them had made a fire and were sitting there.'
    (Aiton 2016: 119)

(41)   Eibela (Bosavi; Papua New-Guinea)
    nɛːna: ***iːjɛː***   *oː-mɛːna:*
    1DU   3.**PART** shoot-FUT.1
    'We two will shoot at them.'
    or 'We two will shoot some of them.'
    (Aiton 2016: 119)

Similarly, the partitive-paucal marker *-sèŋ* attaches to personal pronouns in Wadu Pumi, yielding thus partitive pronouns inflected for all three persons: *tə̀-bù-sèŋ*

(3-COLL-PART) 'one/some of them', *nìŋ-bú-sèŋ* (2-COLL-PART) 'several of you', *iŋ-bù-sěŋ* (1-COLL-PART) '(five) of us' (Daudey 2014: 86, 151, 579, 585):

(42)　Wadu Pumi (Sino-Tibetan; Qiangic)
　　　è-bù-sèŋ　　　kʰɔ̀-ɕɔ̀
　　　1-COLL-PART　OUT-go
　　　'(…) several of our household went (…)'
　　　(Daudey 2014: 205)

While in Eibela or Wadu Pumi, partitive pronouns are syntactically free in that they need not occur next to the predicate, other languages such as French show the tendency for the partitive pronouns to occur immediately next to the verb and often to cliticize with it.

　　　Partitive quantifiers ('some of'), by contrast, typically do not pronominalize the superset (the kind with pseudo-partitives); the latter is expressed by an NP, cf. exes. (43)–(46):

(43)　Apma (Austronesian; Vanuatu)
　　　Ba　　naanong,　ba　　na=ma　　sawiri=te　　bwet　si=ah.
　　　COMM　now　　　COMM　1SG-PRSP　grate=**PART**　**taro**　POL=DEM
　　　'But now, I'll grate some of this taro first.'
　　　(Schneider 2010: 166)

(44)　Caquinte (Arawak; Peru)
　　　a-N-pišoNka-yaraNt-ak-e-ro　　aiNtočapaki
　　　1INC-FUT-put-**PART**-PERF-FUT-3F　**type.of.yucca**
　　　'We will put some of the yucca.'
　　　(Townsend et al. 1988: 77)

(45)　Tlingit (Athabaskan-Eyak-Tlingit; USA)
　　　ḵwáaḵt　tsé　aa　　néi　　x'wán　yeehwáan
　　　amiss　　PRT　**PART**　happen　IMPV　**2PL**
　　　'don't let something happen to any of you'
　　　(Crippen 2012: 327)

(46)　Cherokee (Iroquoian; USA)
　　　tsòʔ　　ìj-àníí-ʔ-âː　　　　　　ts-ùw-ĕːtsíí
　　　three　**PART**-3PL-be.that.many.PERF　**PL-3SG-child**
　　　'three of his sons'
　　　(adapted from Julian 2010: 48)

Partitive pronouns and partitive quantifiers have often quite different historical sources: while partitive pronouns often develop from deictics like 'there' or 'from there/it', partitive quantifiers stem from existential quantifiers such as 'some' or 'a few'.

Even though the distinction between partitive pronouns and partitive quantifiers seems to be so far straightforward, in practice, it is often difficult to discern whether the pronominal is inherently a partitive pronoun or a partitive quantifier or a partitive particle that occurs in a clause with object drop as in (47):

(47)   Hdi (Afroasiatic, Chadic; Africa)
        ndà-'á-ndà
        swallow-**PART**-swallow
        'he swallowed some of (them)'
        (adapted from Frajzyngier 2002: 264)

Note that the pronominal type is orthogonal to the marking strategies to be discussed immediately below (Section 4.2.2) since partitive quantifiers and pronouns may also reflect different marking strategies such as the separative strategy with the German davon 'from it/them' (from the pronominal *da(r)* and the adposition von 'from') or the possessive strategy with the Dutch *er* 'of it/them' (historically from a genitive pronoun) or the unmarked strategy (e.g., *tuut* 'some' in Avava). Having said that, most of the time, it is very difficult to determine the marking strategy of the partitives of this type.

Finally, there is the third subtype *partitive particles* which is even more difficult to distinguish from partitive quantifiers. Partitive particles are found, for example, in many Bantu languages, cf. the class 18 index *=mo* in Oshikwanyma:

(48)   Oshikwanyma (Bantu)
        Opú-n' óu-leke,   ito-kúfá=mo?
        is   14-candy   NEG.PRS.2SG-take=18(=**PART**)
        'There is candy, why don't you take some of (it).'
        (adapted from Halme-Berneking 2017: 147)

Crucially for the pronominal type that all its subtypes – *partitive pronouns, partitive quantifiers* and *partitive particles* – are used pronominally in that either the quantifier or the restrictor or both are not expressed as arguments.

4.2.2 Marking strategies

The second variable, *marking strategy*, tags the underlying metaphor for the morphological marking of partitives: the possessive strategy (Section 4.2.2.1), the separative strategy (Section 4.2.2.2), the locative strategy (Section 4.2.2.3), some other, infrequent strategies (Section 4.2.2.4), and finally the unmarked strategy

(Section 4.2.2.5) that relies on just juxtaposing the quantifier and the (definite) restrictor NPs.

4.2.2.1 Possessive strategy

Languages that employ the possessive strategy exploit the internal-possession metaphor for marking partitives (Hoeksema 1996a: 6; Koptjevskaja-Tamm 2001, 2009; Luraghi and Kittilä 2014: 55). Lavukaleve is such a language (Terrill 2003: 94):

(49)   Lavukaleve (isolate)
       Ma-fan   *e-su-ne*
       3PL.POSS(=PART)-some   3SG.N.OBJ-tie-IMPF
       '**Some of them** were tying it up.'
       (Terrill 2003: 64)

In (49), the restrictor is coded by the possessive plural pronominal prefix *ma-* while the quantifier is *fan* 'some'. While Lavukaleve employs possessive indexes, a number of Indo-European languages employ flags (the genitive case) to encode partitives under the possessive strategy, e.g., Lithuanian, Russian, Punjabi or Armenian.[24] However, the possessive strategy is recessive in many Indo-European languages and tends to be replaced by the separative strategy to various degrees.

4.2.2.2 Separative strategy

Another very frequent strategy to encode the partitive relation is to use a spatial periphrasis based on the metaphor *from*-Ground (Hoeksema 1996a: 6; Koptjevskaja-Tamm 2001, 2009; Luraghi and Kittilä 2014: 55). For example, nearly all Turkic languages employ the ablative case to encode partitives, including pseudo-partitives (cf. Uzbek in Bodrogligeti 2003: 111). Similarly, nearly all Semitic languages may employ the preposition *min* (and its etymological variants) for marking partitives. Below I list some examples of the separative strategy: (50) with an explicit quantifier and generalized partitives in (51)–(53):

(50)   Tuvaluan (Austronesian)
         E   *toko lua i*   *tamataene ne*   *mmai o*   *fesoasoani*
         NONPST NUM two **from** young-man NONPST come and help
         mai ki   *au.*
         ADV to   1SG
         'Two of the young men came and helped me.'
         (Besnier 2000: 330)

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24 I tagged Armenian as also having the possessive strategy although the relevant function is encoded by the dative. The reason for this is that the Armenian dative can also express possession.

(51)   Tyvan (Turkic)
       šay-dan   *ižer*   *men*
       tea-**ABL(=PART)**   drink.P/F   1SG
       'I'll drink some (of the) tea.'
       (Anderson and Harrison 1999: 16)

(52)   Imonda (Border)
       ka-ia-nèi-m   *ainam* *iaha-t*
       1-LOC-**ABL(=PART)**-GL   fast   die-CF
       'one of us would die quickly'
       (Seiler 1985: 58)

(53)   Hungarian (Uralic)
       Ettem   *a*   *kenyer-ből*
       eat.PST.1SG   DEF   bread-**ABL(=PART)**
       'I was eating / ate some of the bread'
       (Moravcsik in Koptjevskaja-Tamm and Wälchli 2001: 664)

This strategy is also found in Africa. For example, the ablative case is used with pronouns and with nouns headed by numerals in Wolaytta (Na-Te-Omotic; Lamberti and Sottile 1997: 216). Some Bantu languages employ the locational class markers otherwise used to encode the source. Compare the class marker =*mo* (class 18) that is used for the ablative meaning in its spatial use in Kirundi (Devos et al. 2017: 73) or Oshikwanyma (Halme-Berneking 2017: 140):

(54)   Oshikwanyma (Bantu)
       Opú-n' *óu-leke,*   *ito-kúfá=mo?*
       is   14-candy   NEG.PRS.2SG-take=18(**=PART**)
       'There is candy, why don't you take some of (it).'
       (adapted from Halme-Berneking 2017: 147)

According to Halme-Berneking (2017: 147), the class marker 18 -*mo* signals source and thus partitive interpretation 'some of (it)'.

    Note that the separative strategy can be further subdivided into subtypes such as 'from-in', 'from-at' or 'from-among', cf. the variation of partitive markers in Romanian: *din* 'from' (consisting of *de* 'of, from' and *in* 'in') vs. *dintre* 'from, among, between' (*de* 'of, from' and *între* 'among') (Tănase-Dogaru 2017). Unfortunately, my data is not fine-grained enough to consistently distinguish between these subtypes (the same holds for the locative strategy, see Section 4.2.2.3 below).

Sometimes the distinction between the separative and the locative strategy (Section 4.2.2.3) is obscured by case stacking. In Punjabi, the partitive marker combines both the locative and the ablative strategy in that it employs the postposition *viccō* 'among', which is morphologically complex containing the postposition *vicc* 'in' and the ablative marker *tō* 'from':

(55)   Punjabi (Indo-European, Indo-Aryan; India)

        ó   *de*   *muNDiãã*   *viccō*   *tinn*   *amriikaa gae.*

        3SG.M   GEN.M.PL   boys.OBL   among(=PART)   three   America go.PST.M.PL

        'Among his boys, three went to America.'

        (Bhatia 1993: 189)

Here, it is reasonable to classify the partitive according to its outermost marker, i.e., the separative *tō* 'from'. Similarly, the partitive case in some Nakh-Daghestanian languages, for example, in Archi, Khwarshi (Kibrik 1977: 174; Khalilova 2009) or in Hinuq (*-ł-es* '-in-from', Forker 2013: 83) stems from an earlier inter-elative.

Finally, it is not entirely clear what the spatial origin of the partitive case (in *-DA*) in the northern Siberian Turkic languages such as Yakut or Tofa is. While it goes back to the Proto-Turkic locative case (Nevskaya 2017: 278; Ubrjatova et al. 1982: 134), separative uses of this case are also attested in Old Turkic, cf. *tengri-de* /sky-dA/ 'in the sky, from the sky' (Erdal 2004; Nevskaya 2017: 279; Ubrjatova et al. 1982: 134).

Within the NP-internal syntactic type, it is the separative strategy that most often develops into a dedicated partitive marker (partitive case) while losing its original spatial meaning. A dedicated partitive case stemming from an ablative is found, for example, in all Finnic languages. In Kryz (Nakh-Daghestanian), the meaning of the subelative case came to be exclusively used for partitive functions while its spatial meaning has been taken over by a new postposition (Authier 2009: 82). In Archi and in Khwarshi (Nakh-Daghestanian), the dedicated partitive case stems from an earlier inter-elative (Khalilova 2009; Kibrik 1977: 174). Note that the pseudo-partitive use of the dedicated partitive case is prevalent in all these languages.

4.2.2.3 Locative strategy

The locative strategy implies that the partitive marking is syncretic with a location marker. Somewhat unfamiliar in this context is the English conative construction with *at* (Levin 1993: 6) sometimes with *on* (Levin 1993: 43):

(56)   a.   *Margaret cut the bread*
         b.   *Margaret cut at the bread*

The insertion of the preposition at in (56) yields the true-partitive interpretation of the object, similar to *Margaret cut some of the bread*.

The locative strategy is marginally also found in German with the prepositions *an* 'at' (cf. Filip 1999: 267) and *unter* 'among'.

(57)   German (Indo-European; www[25])

Lass	*Deinen*	*Mann*	*doch*	*mal*	**am**	**Fisch**	*probieren*
let	your	husband	PRT	PRT	**at.DEF.DAT.SG**	**fish**	taste

und	*beurteilen,*	*ob's*	*salzig*	*ist*
and	judge	whether it	salty	is

'Let your husband taste **the fish** and tell whether it is salty.'

Otherwise German primarily employs the separative strategy with *von* 'from' or the possessive strategy with the genitive.

Outside of Europe, the locative strategy is frequently found in Africa, especially in various Bantu languages (cf. Persohn and Devos 2017). Many Bantu languages such as Soga, Kwanyama, Ruund, Lega, Haavu, Luvale, Ganda, Nyakyusa or Umbundu employ place class markers (class 16 and 17) which often occur as verbal clitics (subsumed under the pronominal type here) to encode partitive functions (Persohn 2017a; Persohn and Devos 2017: 21–24). For example, the location marker *íbè/íbé* is used in Oko (Atoyebi 2010: 131):

(58)   Oko (Atlantic-Congo; Nigeria; Atoyebi 2010: 132)

ọ̀ọ́rẹ	*égbén*	*ábẹ̀*	*íbè*	*yọ̀*	*úbó*
one	children	DEF.PL	LOC	go	house

'One of the children went home.'
(Lit. One inside/among the children went home.)

In Luvale, the place class markers *ku* (class 17) is used on the object NP 'food' (which is class 15 otherwise):

(59)   Luvale (Bantu)

eji	*ku-ly-anga*	*ku-ku-lya*	*c-ami*
1[26].AUX	INF-eat-HAB	17-15-food	15-POSS.1SG

'He eats of my food.'
(Persohn and Devos 2017: 22)

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25 http://www.gesundehunde.com/forum/archive/index.php/t-87252.html.

26 The first class among the third persons – usually singular humans.

Numerals and quantifiers in a number of Dravidian languages such as Malayalam or Tamil are used as modifiers of the NP (cf. English *two boys*). They may also be used pronominally – with a classifier-like noun, cf. *peer* 'person' in (60) – resulting in the true-partitive meaning. In this case, they follow the dependent NP and require the locative case on it (Asher 1985: 116; Asher and Kumari 1997: 218–219):

(60)   Malayalam (Dravidian; India)
         aaŋkuṭṭikaḷil   raṇṭə   peer   vannu
         male.child.PL.LOC   two   person   come.PST
         'Two of the boys came.'
         (Asher and Kumari 1997: 218)

The locative strategy is different from the separative or possessive strategies in that it might require that the subset be located at the same place as the superset, at least, at an early stage of grammaticalization into a partitive marker. Thus, this strategy is less suitable with predicates that denote separation, e.g., *to leave*. Contrast (61) or (63) vs. (62):

(61)   Some *among us have achieved great things.*

(62)   Some *among us have left our town. (?)*

(63)   Some *of us have left our town.*

Generally, the locative strategy subsumes two subtypes. The first subtype is based on the concept of 'among' (e.g., in Togo Kan, cf. Heath 2015: 150, Section 8.2.12):

(64)   Togo Kan (Dogon);
         *nàŋá   í*ⁿ   *kè*   **kɛ́nɛ̀,**   *nàŋá à:ŋá   nù-y*
         cow   1SG.POSS   POSS   **among**(=PART)   cow how.many   die-PFV
         'Among my cows, how many cows died?'
         (Heath 2015: 289, Ex. 418–419, Section 13.2.7)

The second subtype is based on the spatial concept of containment 'inside' (Luraghi and Kittilä 2014: 54–55), for example in Koyra Chiini (Heath 1999: 105), or proximity, as, marginally in English (56) or German (57), for example. Some languages employ both subtypes at the same time, for example, Jamsay (Dogon) marks the superset NP with either *bèrê*: 'in' or with *gǎnǹ* 'between' (Heath 2008: 471). In other languages, these subtypes are difficult to distinguish. For example, in

Biblical Hebrew the locative/instrumental preposition *b-* occurs with human referents in the plural in the meaning 'among' (65); Homeric Greek is similar (66):[27]

(65)   Biblical Hebrew (Ct 1.8.; Semitic)
         hay-yāfā   *b-annāšīm*
         DET-beautiful   in-women
         'beautiful among women'
         (Pennacchietti 1974: 175)

(66)   Ancient Greek; Indo-European)
         ariprepéa   *Trṓessin*
         beautiful.NOM.SG.F   Troans.DAT=LOC.PL
         'the beautiful [one] among the Troans'
         (Homer Iliad 6.477)

Furthermore, partitive pronouns (Section 4.2.1 above) sometimes stem etymologically from locative pronouns such as 'there'. For example, *-i'ij* in Itzá (Mayan) is homophonous with the locative pronoun *-i'ij* 'there' (Hofling 2000: 304, 306) and therefore it probably descends from it historically. Similarly, the partitive pronouns in Eibela (Bosavi) are all derived by means of the marker *-jɛ:*, which is homonymous with the locative marker and seems to stem from it.

    Some languages have general spatial adpositions which encode different kinds of spatial relations including the movement from the Ground, rest inside the Ground, etc. In Mussau (Austronesian; not included in the database), the partitive is coded by the proclitic *eta=* which has a very general locational meaning including both the separative and the locative meanings and which, moreover, requires the possessive marker as well (cf. Brownie and Brownie 2007: 152–3). Similarly, the preposition *mụ́* in Degema (Atlantic-Congo) can occur as locative, ablative, allative, etc. (Kari 2004: 213; tagged as unclear in the database).

4.2.2.4 Rare strategies
I have only one example of a language in my database that employs a serial verb: Neverver has the partitive serial verb *-dor* (Barbour 2012: 221):

(67)   Neverver (Austronesian; Vanuatu)
         Na   *ni-khan-dor*   *ni-kkan-ian*   *na.*
         1SG   1SG.REAL-eat-PART   NMLZ-eat-NMLZ   1SG
         'I partly ate my food.'
         (Barbour 2012: 221)

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27 The possessive strategy is more typical for Ancient Greek.

According to Barbour (2012: 325), this partitive marker stems from a verb *dor* 'become thin, lean'. However, it is not excluded that this marker was in fact originally an incorporated quantifier/pronoun, just synchronically patterning similar to a serial verb.

Another rare example is Apatani (Sino-Tibetan), which marks the subset quantifier by means of the collective marker *xi* on the numeral or quantifier (Abraham 1985: 59):

(68)   Apatani (Sino-Tibetan)
        hime   hiṅe   xi
        boys   three   COLL(=PART)
        'three of the boys'
        (Abraham 1985: 59)

(69)   Apatani (Sino-Tibetan; India)
        mólu   taṅe   xi
        3PL   some   COLL(=PART)
        'some of them'
        (Abraham 1985: 59)

Another rare strategy is based on the comitative/instrumental marking of the superset NP. It is marginally found in Scandinavian languages (cf. Koptjevskaja-Tamm 2001). Further examples include Jalkunan (Mande), cf. (25) above, Mapdungun, or Ulwa (which employs the comitative enclitic *=ul*):

(70)   Ulwa (Ulmapo; Papua New Guinea)
        nï   lïmndï   tïn   ndï=ul   kuma ndï=ala
        1SG   eye   dog   3PL=with(=PART)   some 3PL=for
        'I saw some of the dogs.' (lit. 'I saw some with the dogs.')
        (Barlow 2018: 200)

(71)   Mapudungun (Araucanian; Chile)
        itro-kom-mew   wente-le-lu
        quite-all-INS(=PART)   top-ST-SVN
        'the topmost of all'
        (Smeets 2008: 218)

(72) Mapudungun (Araucanian; Chile)
     iñchiu   *misha-w-a-y-u*   *korü-mew*
     1DU   share.with-REF-NRLD-IND.1NS   soup-INS(=PART)
     'we will eat some of the soup together'
     (Smeets 2008: 218)

Finally, some languages regularly employ lexical items to encode the partitive relation. For example, Madurese (Austronesian) has the noun *sabagiyan* 'part' (sometimes with the separative preposition *dhari* 'from') to convey the meaning of an indefinite subset (Davies 2010: 198):

(73) Madurese (Bosavi)
     Sabagiyan   *mored-da*   *Pa'* *Hadi bakal* *lulus*   *tes*.
     part(=PART)   student-DEF   Mr   Hadi will   pass   test
     'Some of Pak Hadi's students will pass the test.'
     (Davies 2010: 198)

4.2.2.5 Unmarked strategy

Quite a number of languages allow the true-partitive relation to be morphologically unmarked and thus employ the strategy that is otherwise used for the plain – i.e., non-proportional – quantification such as 'many books' or 'five letters', cf. Tuvaluan:

(74) Tuvaluan (Austronesian; Tuvalu)
     E   *toko lua tamataene* *ne*   *mmai o*   *fesoasoani* *mai ki au.*
     NONPST NUM two young-man NPST come and help   ADV to 1SG
     'Two young men came and helped me.'
     or: 'Two of the young men came and helped me.'
     (Besnier 2000: 330)

The unmarked strategy is different from implicit expressions (Section 2.2.2) such as *some flowers* in (11). While, with implicit expressions, the meaning of the true-partitive relation is produced by the discourse situation and not by encoding it because the superset has to be retrieved from previous discourse, the unmarked strategy is found when both the subset and the superset are explicitly mentioned. Since many languages do not have dedicated definite determiners that would disambiguate a definite NP, in practice, an unmarked strategy can only be safely assumed if an indefinite expression (an indefinite-plural marker, indefinite pronoun or quantifier) is found to modify an NP that is explicitly marked as definite

(e.g., by a determiner, demonstrative, definite pronoun, etc.). Compare the following examples:

(75)   Mapudungun (Araucanian; Chile)
         kiñe-ke   ñi   pu wenüy
         some-DISTR   POSS.1SG   PL friend
         'some of my friends'
         (Smeets 2008: 136)

(76)   Avava (Austronesian; Vanuatu)
         Komat-yan   mwiniel   i   moroko-n   tuut   ier
         1PL.EXC.R-eat   taro   INS   rib-3SG   some   PL
         'We ate the taro with some of its ribs.'
         (Budd 2014: 553)

(77)   Avava (Austronesian; Vanuatu)
         I-yan   tuut   emer   ki
         3SG.R-eat   some   eel   DEM
         'He ate some of the eel.'
         (Budd 2014: 553)

(78)   Dholuo (Nilotic; Sudan)
         Nyithinda   moko odhi   sikul
         children.1SG.POSS   some go-PFV   school
         'Some of my children have gone to school.'
         (Okoth Okombo 1997: 24)

(79)   Supyire (Atlantic-Congo; Mali)
         wùu   wà
         1PL   INDEF.SG
         'one of us'
         (Carlson 1994: 195)

(80)   Movima (isolate; Bolivia)
         us   al-kaka:-ye
         DEF.M   similar-many-person
         [lit.] 'the male (one out of my) relatives'
         (adapted from Haude 2006: 436)

Some languages distinguish between definite and indefinite plural markers. The latter can sometimes be used to encode the true-partitive relation:

(81)   Syer (Atlantic-Congo)
        mɛ̀   *wò*   *čɛ̌-**plā̀à***   *sɔ̀*   *nìwurù.*
        CONS   our   woman-**INDEF**   marry   even
        '… and even married some of our women.'
        (Dombrowsky-Hahn 2015: 299)

Since the semantic dependency between the superset and the subset is encoded by the very general strategy of juxtaposition, this strategy does not differentiate morphologically between the true-partitive relation and a wide range of other functions that the bare juxtaposition of two phrases may encode in a particular language.[28] Therefore, languages with the unmarked strategy often have another strategy that is based on a particular marker. For example, Imbabura Quechua or Tuvaluan may also express the true-partitive relation with a separative adposition (cf. *i, mai* or *mai i* in Tuvaluan) in addition to the unmarked strategy in order to exclude any non-true-partitive interpretations.

4.3 Synopsis of different syntactic types and strategies

Below I present the quantitative evidence on different syntactic types (Section 4.2.1) and marking strategies (Section 4.2.2).

4.3.1 Synopsis of different syntactic types

Table 4 provides the frequencies of different syntactic types: pronominal, NP-internal and no marking at all.[29] In order to level out the impact of larger families, the totals of families per type are provided first. Here, one family can only contribute one point per type regardless how many languages of that family attest the type (if a family attests several types, it contributes a point to each of those):

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28 There might be some other, non-morphological means to differentiate between the two (such as the order of elements or words) but these cannot be discussed here and would require a typology of their own.
29 Since the unmarked strategy (Section 4.2.2.5) only relies on juxtaposing the subset and the (definite) superset NPs, it can theoretically be analyzed as NP-internal marking. However, I refrain from doing so and tag all partitives of this strategy with the non-applicability tag in the syntactic type.

Table 4: Frequencies of the different syntactic types.

	NP internal (flag or possessive index)	Pronominal (lexically marked)	Unmarked
Per family	28	11	26
Per language	104	25	43

While the pronominal type is much less frequent, the NP-internal marking is certainly the preferred syntactic type:

(82)　　Syntactic type preference
　　　　NP-internal type > pronominal type

This preference might even be stronger if one counts the juxtaposition – i.e., the unmarked – type as an NP-internal syntactic type.

4.3.2 Synopsis of the different marking strategies

Before I turn to the quantitative evidence, note that languages sometimes allow for more than one strategy (e.g., the separative *von* 'from', the locative *an* 'at' and *unter* 'among' in German), often with different frequencies and degrees of grammaticalization – something that cannot be captured within the frame of this study.

Furthermore, since my aim is to establish the underlying metaphor and thus the source of partitive markers, the classification is unavoidably somewhat diachronic. Thus, partitive markers that synchronically have different meaning facets in the language are tagged according to the function that the partitive is most probably derived from. For example, the partitive marker *de* in French functionally matches two of the strategies listed above: the possessive and the separative strategy. However, since the partitive function historically derives from the separative and not from the possessive function as is evidenced by Latin (Carlier and Lamiroy 2014), French is tagged as having the separative strategy (the same holds for the partitive pronoun *en* 'thereof'). If the grammar does not provide any diachronic information on the ambiguous marker, the partitive is tagged according to the least abstract meaning of the marker in the given language along the following scale: separative < locative < possessive. This seemed to be a reasonable convention that would only affect very few entries anyway. In some instances, the strategy was tagged as *unclear*.

Table 5 provides the absolute frequencies of each strategy in the database. These counts show that none of the marked strategies is universally preferred because different strategies are found to occur with comparable frequencies.

Table 5: Frequencies of the different marking strategies.

	Possessive	Separative	Locative	Unmarked	Unclear[30]	Other
Per family	11	20	13	26	10	5
Per language	24	56	25	43	19	5

Having said this, there are some clear preferences. While, e.g., the instrumental strategy is clearly dispreferred (subsumed under *other* in Table 5), the separative and the unmarked strategy are more frequent than any other strategy. I summarize:

(83)   Strategy preferences (the preferred strategy is to the left)
         unmarked > separative > locative/possessive > instrumental

The difference between the locative/possessive and the separative strategy is most probably due to areal pressures that boost up the absolute numbers of my sample, which is biased for Eurasia (Section 5).

5 Areal distribution

The marking strategies discussed above reveal areal biases. Figure 2 suggests that the separative strategy is typical for Eurasia, while the locative strategy is more typical for Africa.[31] Table 6 presents the row counts and highlights the outliers.

Although the sample is not large enough to provide for a more precise picture, it is sufficient to make two claims. First, the distribution clearly shows that none of the marked strategies is universally preferred. Secondly, the null hypothesis of the marking strategies being normally distributed across all macro-areas can be rejected. Taken together, this means that strategy selection is subject to areal pressures.

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30 Pronominal partitives are mostly morphologically intransparent, identifying the marking strategy is therefore often impossible. For this reason, pronominals are often tagged as *unclear* in the database.

31 This, of course, does not exclude that these strategies may be found elsewhere. For example, the locative strategy may also be found in Samoan (Austronesian; not included into the database), cf. the locative preposition *i* that may be used as a generalized partitive in this language (cf. examples in Mosel and Hovdhaugen 1992: 108).

Figure 2: The geograpic distribution of the marking strategies[32].

Table 6: Coding strategies across the macro-areas, per languages, bold indicates statistical significance.[33]

	Africa	Australia	Eurasia	North America	Oceania	South America
Separative	3	2	**44 (57%)**	–	3	3
Possessive	1	1	17 (22%)	1	4	–
Locative	**15 (56%)**	–	8 (10%)	–	1	1
Unmarked	8 (30%)	8	8 (10%)	5	10 (50%)	4
Other	–	–	1	–	2	2
	27 (100%)	*11*	*77 (100%)*	*6*	*20*	*10*

To test this I computed the standardized residuals in the *chi*-square test.[33] The separative strategy in Eurasia and the locative strategies in Africa have revealed themselves as statistically significant outliers (standardized residuals < 2.5). Given that the underlying sample is a convenience sample, I have also computed Fisher's

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32 Note that more than one partitive strategy in one language may not be properly represented on the map for technical reasons.

33 Statistically significant means the standardized residuals for the outlier cells in bold were above/below 2.5 in a chi-square test. Despite the fact that the underlying dataset is a convenience sample, the test is a legitimate method because the availability of a good grammatical description does not interfere with particular strategies of partitive coding; the sample of partitive coding strategies can thus be considered to be picked out randomly and thus allow for statistical inferences on the entire "population".

Table 7: Contrasting the separative strategy in Eurasia with elsewhere.

	Eurasia	Elsewhere
Separative	44	11
Other	33	63

Exact test in a two-by-two table (Table 7, $p < 0.001$) that puts fewer requirements on the distribution of the observed data (Janssen et al. 2006: 425).

The areal bias towards the separative strategy in Eurasia is not only supported by genealogically unrelated languages of this area selecting this pattern (e.g., Turkic, Basque, etc.) but also by those languages of the sample that are related. These languages too provide genealogically independent evidence for the areal bias. For example, many modern European languages have partitive adpositions that stem from ablative adpositions such as French *de*, Dutch *van* or Latvian *no*. Crucially, despite the fact that these languages all belong to the same stock (Indo-European), this corelation is not due to common inheritance, because these adpositions are demonstrably not interrelated etymologically but represent innovations across and even within the subfamilies. By contrast, the original, inherited pattern of Indo-European – the possessive strategy (by means of the genitive case) – is recessive in all branches of this family, albeit to a different degree.

For example, Latvian (Baltic, Indo-European) employs the preposition *no* 'from' while the closely related Lithuanian uses the preposition *iš* 'from' and not the etymologically related preposition *nuo* 'from'. This means that the two Baltic languages innovated independently but under the same areal pressure. Similarly, although all Germanic languages rely on the separative pattern, the morphological markers are not etymologically interrelated: cf. Scandinavican *av/af* 'from' vs. German *von* 'from'. In the same vein, some Slavic languages employ unrelated separative prepositions to encode partitives, cf. Serbian *od* 'from' vs. Russian *iz* 'from'.

The fact that the correlation is only structural but not etymological, even among closely related languages, suggests that the bias for the separative strategy is motivated by areal pressure, i.e., ultimately by language contact, and not by a commonly inherited pattern, even within Indo-European. Pattern borrowing of the separative strategy has also been documented for other families of Eurasia. For example, it has been explicitly argued for Evenki (Tungusic), Dolgan and Sakha (Turkic) in Pakendorf (2010: 727–729).

The separative strategy outside of Eurasia is also in some cases the result of language contact with some European language. For example, a number of

Mesoamerican and South-American languages copy the Spanish preposition *de* to mark partitives in terms of pattern and sometimes also in terms of matter borrowing (e.g. in Nahuatl, cf. Hober 2020).

More generally, there is a bias towards NP-internal marking, i.e. most typically by adpositional markers (separative, locative and possessive), and against the unmarked strategy in Eurasia, see figures in Table 8.[34] The latter finding corroborates the evidence from European languages in Koptjevskaja-Tamm (2009).

Table 8: Places of marking across the macro-areas, bold are statistically significant.

	Africa	Australia	Eurasia	N. America	Oceania	S. America
NP-internal	16	3	**69**	1	9	5
Pronominal	6	1	5	3	7	3
Unmarked	8	**8**	8	5	10	4

6 Other related functions

In Section 4 and Section 5, I have explored the coding patterns of partitives as well as their areal biases. This section is devoted to exploring functions that partitives may develop in addition to the expression of the true-partitive relation. This quest is inspired by the partitive case in Finnic languages which has prominently developed functions in the following domains: plain quantification (pseudo-partitives, Section 6.1, cf. (84b), hypothetical events (Section 6.2, cf. (87b), predicate negation (Section 6.3, cf. (85)), event quantification and aspect, cf. (86a) vs. (86b), (repeated from (1), (2), (3) and (4) above) and even politeness (Section 6.4):

(84)   Finnish (Uralic)
        Sö-i-n   puuro-a
        eat-PST-1SG   porridge-PART.SG
        a. 'I ate some of the porridge.'
        b. 'I ate some porridge.'
           (Huumo 2010: 91)

---

34 In contrast to the distributions in the other areas, Eurasia has more than 15 times more NP-internal marking than marking via a partitive pronominal and ca. 10 times less the unmarked strategy than NP-internal marking. The chi-square test shows statistical significance (standardized residuals more than +/–2.5) for the interaction of Eurasia and NP-internal encoding (though this result might need additional verification given the low values of some other cells).

(85)   Finnish (Uralic)
         En   voidel-lut   suks-i-a.
         NEG.1SG   wax-PST.CONNEG   ski-PL-PART
         'I did not wax (the) skis.'
         (Huumo 2010: 95)

(86)   a.   *Lyhens-i-n hame-tta*
              shorten-PST-1SG   skirt-PART.SG
              'I was shortening the skirt.' or 'I shortened the skirt [somewhat].'
         b.   *Lyhens-i-n   hamee-n*
              shorten-PST-1SG   skirt-ACC.SG[35]
              'I made the skirt short.'

(87)   Finnish (Uralic)
         a.   *Luul-i-n   häne-t   viisaaksi.*
              think-PST-1SG   3SG-ACC   wise
              'I thought him to be wise.'
              (Huumo, p.c.)
         b.   *Luul-i-n   hän-tä   viisaaksi.*
              think-PST-1SG   3SG-PART   wise
              'I (mistakenly) thought him to be wise.' (but he turned out not to be)

In this section, I present crosslinguistic data on the interaction between partitives and these categories.

6.1 Pseudo-partitives

In addition to the true-partitive relation, partitives are sometimes employed to encode plain quantification as well. For example, the ablative case that is used to encode partitives in Ossetic can encode both: (88) features the true-partitive relation, while (90) denotes plain quantification, i.e., used as a pseudo-partitive (cf. 2.2.4):

(88)   Digor Ossetic (Indo-European)

---

[35] I take the Finnish genitive in the singular and nominative in the plural as a non-autonomous accusative case, as the personal pronouns – the only ones to distinguish a dedicated accusative case – show the accusative case here.

(89) ɐ=χʷesteg-dɐr   ɐmbɐl-tt-ɐj   jew
      POSS.3SG=close-COMP   friend-PL-**ABL(=PART)**   one
      'one of his closest friends'
      (Avdul Ikʼati. Cardi ajdænæ; courtesy D. Erschler)

(90) Iron Ossetic (Indo-European)
      Nartxor-ɐj   *ɐr-əʃʃad-toj*   *dəwwɐ*   *tonnɐ-jə*
      maize- **ABL(=PART)**.SG   PRV-grind-PST.3PL   two   tonne-NUM
      'They ground two tons of maize.'
      (Bagaev 1965: 156)

Another example is many Arabic varieties in which the separative preposition *min* (and its variants) are required by quantifiers regardless whether or not the meaning is the true-partitive relation or plain quantification, cf. both interpretations in (91):

(91) Gulf Arabic (Afroasiatic)
      kathiir   *min*   *in-niswaan*
      many   **from(=PART)**   DEF-women
      'a lot of (the) women'
      (Holes 1990: 73)

Yet, 48% of all marked partitives (61/128) in my sample allow for the pseudo-partitive function. Note that there is no interaction with macroareas here. The proportion of pseudo-partitives is similar across all macroareas ($p = 0.63$, χ^2). This means that the co-expression of the true-partitive relation and plain quantification (via pseudo-partitives) is a natural phenomenon. Accordingly, the acquisition of the pseudo-partitive function by partitive constructions originally only denoting the true-partitive relation is a natural drift (Seržant, submitted). What is more, in some languages, partitive constructions are primarily used as pseudo-partitives. Pseudo-partitives may become as pervasive in a language as to become even obligatory in various numeral and quantifier phrases (Greenberg 1978: 301–303), e.g., in Finnish, Russian, Wolof (Greenberg 1978: 287); Rifian Berber (92) or Ossetic (93):[36]

(92) Central Moroccan or Rif Berber
      tlata   *n*   *twrar*
      three   **GEN**   hill
      'three hills'
      (Kossmann 2000: 108, 160)

---

36 I have not found any instances of the true-partitive relation with the genitive in Ossetic and Rifian Berber, which is why these languages attest no possessive strategy in the database.

(93)   Ossetic (Indo-European)
         fondz   *xædzar-y*
         five   house-**GEN**.SG
         'five houses'
         (Arys-Djanaïéva 2004: 107)

Note that the pseudo-partitive function is not equally probable across the syntactic types as can be seen in Table 9.

The stronger preference of the pronominal type to co-express pseudo-partitives might be related to the fact that indefinite quantifiers – from which some of the partitive pronominals emerged – in general tend to retain these two usages, cf. English *some*. The latter has both meanings, the true-partitive usage (*SOME*, stressed) and the quantifier usage (*sm*, unstressed).

Finally, there is also a difference in the probability of the pseudo-partitive function across the different marking strategies of the NP-internal syntactic type, see Table 10. The possessive strategy is most likely to combine true-partitive and pseudo-partitive usages, in contrast to the strategies based on spatial metaphors.

Table 9: Pseudo-partitive usage across different syntactic types (Cramer's V = 0.26, $p < 0.01$ χ^2).

	NP-internal	Pronominal
Pseudo-partitive	**41%** (42)	**75%** (19)
True partitive only	**59%** (61)	**25%** (6)

Table 10: Pseudo-partitive function across strategies (unclear and unmarked strategies excluded).

	Locative	Separative	Possessive
Pseudo-partitive	16% (3)	38% (20)	**67%** (16)
True partitive only	84% (16)	62% (32)	**33%** (8)

6.2 Partitives with intensional and hypothetical predicates

Generalized partitives often interact with intensional and hypothetical predicates. Intensional verbs are verbs that allow for two interpretations of their objects: a specific or transparent meaning (e.g. the speaker has a particular referent in mind) and an opaque, property-denoting, non-referential meaning, i.e. with no existential presupposition (Borschev et al. 2008; Partee 2008; Quine 1960: Section

32; Zimmermann 1993).[37] For example, the English verb *to seek* does not require its object to exist, as one can seek magic items or a new planet, whereas other verbs require their objects to exist under normal circumstances (e.g. *to look at, to destroy*, etc.). Some modern Indo-European languages have even lexicalized the generalized partitive (the possessive strategy) with intensional verbs. For example, the Lithuanian verb *ieškoti* 'to seek' or the verb *iskat'* 'to seek' in Old and dialectal Russian require genitive marking of the object, which goes back to the partitive genitive (Seržant 2014a, 2014b with preceding literature). The same holds for 'want' in Lithuanian:

(94)　　Lithuanian (Indo-European)

Noriu	*stal-o*	/	*stal-ą*	*su*
want.PRS.1SG	table-**GEN(=PART)**.SG	/	table-ACC.SG	with

keturi-omis	*kėd-ėmis*
four-INS.PL.F	chair-INS.PL

　　　　'I want (to have) a table with four chairs.'
　　　　(Ambrazas et al. 2006: 486)

Similar to intensional (and negated (Section 6.3)) predicates are predicates that denote hypothetical events. For example, grammatical categories that are related to future and modality (94) such as the future tense, imperative mood (97) or purposive constructions ((95)–(96)) denote events that are hypothetical and non-referential. These contexts also occasionally allow partitive marking in different languages:

(95)　　Lithuanian (Indo-European)

Važiuosiu	*egl-ės*	*pirkti*
drive.FUT.1SG	Christmas_tree-**GEN(=PART)**.SG	buy.INF

　　　　'I will go (to a marketplace) to buy a Christmas tree.'
　　　　(Seržant 2014a: 290)

(96)　　North Russian (Indo-European)

Pošla	*golovy*	*poloskat'*
go.PST.F.SG	head.**GEN(=PART)**.SG	wash.IPFV.INF

　　　　'She went to wash (her) head'.
　　　　(Mansikka in Seržant 2014b: 298)

---

37 Intensional meanings are concepts and are opposed to extensional meanings which have referents; they should not be confused with *intenTional* contexts (Cruse 2000: 21).

(97)   North Russian (Indo-European)
         Prinesite   *okutki*
         bring.PFV.IPV.2PL   blanket.**GEN(=PART)**.SG
         'Bring the blanket!'
         (Mansikka in Seržant 2014b: 299)

A situation similar to North Russian or Lithuanian is found in Latgalian (Nau 2014: 227) and in a number of Finnic languages. In Finnic languages such as Finnish, Karelian, Ingrian or Veps, embedded purpose clauses controlled by a motion verb, modal verbs such as 'want' or 'try' or future auxiliaries such as 'to be going to' may condition the partitive marking on the object NP (Larsson 1983: 84–85, 92–93, 103–104).

Partitives with predicates denoting hypothetical events are also found outside Europe. The partitive prefix *ni-* in Cherokee (Iroquoian) may denote hypothetical events rendered by English 'almost' (*I almost forgot* …) (Montgomery-Anderson 2008: 313). Similarly, the partitive verbal clitic *-te* in Apma "is often exploited to underline the uncertainty of hypothetical situations, desires, requests and attempts", for example, in irrealis expressions of intention or prospect (Schneider 2010: 167):

(98)   Apma (Austronesian; Vanuatu)
         Ani na=n   *veb=te*   *nge teweb.*
         but 1SG=IRR   talk=PART   just a.little.bit
         'But I'll just talk a little bit.'
         (Schneider 2010: 167)

Similarly, the dedicated partitive case (*-DA*) of Yakut and Tofa (Turkic, Siberian) is only used with imperatives (Ubrjatova et al. 1982: 134), and in Dolgan also with intended events ('I will tell you a story(PART)' (Ubrjatova 1985: 117).

The correlation between partitives and hypothetical events is not accidental. It has been observed in the literature that hypothetical events (e.g., irrealis) may be encoded by different kinds of object demotion strategies such as antipassive, for example (Givón 2001: 168). Dahl (1971) and Borschev et al. (2008) observe that the partitive genitive and the subjunctive in Russian have a common semantic core in that both are typically non-presuppositional and non-entailing, the former on the level of the NP's referent and the latter on the clause level (cf. Borschev et al. 2008).

Finally, it is sometimes assumed that the hypothetical meaning (e.g., 'almost' in Cherokee mentioned above) is related to the aspectuality-related function of partitives that entails lack of culmination of a telic event. Thus, the non-culminating meaning 'to shoot at' seems to be semantically close to the meaning 'to almost shoot (to death)' (cf. Section 6.4).

6.3 Partitive under negation

Interaction between partitives and predicate negation is not typologically totally uncommon (Miestamo 2014). Approximately 14% (18/128) of marked partitive expressions in my database show some interaction with predicate negation. Partitives are particularly likely to interact with negation in two areas: Europe and Vanuatu (Arkadiev and Kozhanov forthcoming; Budd 2014; Miestamo 2014; Koptjevskaja-Tamm and Wälchli 2001).

In what follows, I roughly distinguish between two types of interaction between partitives and predicate negation. Both types are diachronically interrelated. The first type (i) pertains to those partitives that have become obligatory in at least some contexts of clausal negation. This type often does not contribute an invariant additional meaning to the sentence interpretation and sometimes is comparable to a discontinuous negation marker (along with the main negation). The second type (ii) is found when the partitive is optional in all contexts of negation. Its primary and invariant function is then emphasis of the negation.

I begin with the first type (i). In Europe, some languages require partitive marking on the object or on the (intransitive) subject of a negated predicate (see Arkadiev and Kozhanov, forthcoming, for an overview). For example, Polish and Lithuanian require the direct object to be marked by the genitive (the possessive strategy) while it is marked by the accusative case in the affirmative clauses, cf.:

(99)   Lithuanian (Indo-European)

a. *Ne-mačiau   tavęs   šiandien.* b. *Mačiau   tave   šiandien.*
     NEG-see.PST.1SG   2SG.GEN(<PART) today   see.PST.1SG   2SG.ACC today
     'I didn't see you today.'   'I saw you today.'

The same is true for many Finnic languages with respect to the partitive case and for French with respect to the partitive preposition *de* (the separative strategy) when the object is indefinite.

It can thus be said that, in these languages, partitives form part of discontinuous negation and are as such highly syntacticized, i.e., blind to any semantic considerations. In some rare instances, even the partitive marking alone may imply negation. For example, Nau (2014: 226) reports that in Latgalian (Baltic, Indo-European) the partitive-genitive marking can alone signal negation if the verb is in the subjunctive (also referred to as *conditional mood*):

(100)   Latgalian

     kurs   ta   tī   āstu   tūs   zuoļu
     who   PRT   PRT   eat.SUBJ   DEM.GEN(=PART).PL   medicine.GEN(=PART).PL
     'who would (want to) take this medicine' (implying 'nobody would take it')
     (Nau 2014: 227)

Obligatory partitives under negation are found also outside Europe. For example, the partitive marker *te(he)* in Raga or *re* in Araki are obligatory under negation (François 2002: 68; Vari-Bogiri 2011: 149). Similarly, the partitive pronoun, turned clitic, becomes obligatory with transitive verbs with non-generic objects in Paamese (Crowley 1982: 147), Lewo, Lamen, South-East Ambrym, Atchin (Early 1994: 81, 84–86, 89) and with prohibitives in Apma (Schneider 2010: 127):

(101) Paamese (Austronesian; Oceania)
      Ro-longe-*(tei)   *inau*
      3SG.**NEG**-hear-***(PART)**   1SG
      'He didn't hear me.'
      (Crowley 1982: 145)

The partitive prefix *ni-* is used in conjunction with the negation marker *-v́v́na* in nominalized subordinate predicates in Cherokee:

(102) Cherokee (Iroquoian; USA)
      ni-uu-yóosiisk-v́v́na   *a-ali-stáyvvhvska*
      PART-3-hungry.**NEG**.NMLZ   3A-MID-fix.a.meal.PRS
      'He's eating while he's not hungry.'
      (Montgomery-Anderson 2008: 315)

In the following example from Rapa Nui, the genitive preposition seems to be motivated by the negation as well:

(103) Rapa Nui (Austronesian)
      Kai   *toe*   *tā'ana*   *o*   *te*   *ika,* *o*   *te*   *'ura,*
      NEG.PFV remain POSS.3SG.A **GEN** DET fish **GEN** DET lobster
      o   *te*   *kō'iro.*
      GEN DET conger_eel
      'There was no fish, lobster or conger eel left for her.'
      (Kieviet 2017: 254)

Similarly, Thakali requires genitive marking on indefinite pronouns in the S and P position if the predicate is negated (Georg 1996: 83–4):[38]

(104) Marphatan Thakali (Sino-Tibetan, Bodic)
      ṅa-se   *su-e*   *a*   *mraṅ* *ju.*
      1SG-ERG   INDEF-GEN NEG see   AUX

---

38 However, since the genitive does not seem to encode partitive relations otherwise in Thakali, it is not entirely clear whether the genitive-under-negation really stems from an original partitive function. For this reason, Thakali has no entry in the database.

'I haven't seen anyone.'
(Georg 1996: 84)

Finally, some languages attest the obligatory partitive marking under predicate negation in the earlier stages. For example, the partitive preposition *o* was obligatory with definite objects under negation in Middle Welsh (Borsley et al. 2007: 312). The partitive genitive in early Old Russian also seems to have been obligatory, in contrast to Modern Russian.

I turn now to the second type of interaction between partitives and negation (ii). Many languages employ partitives for expressing emphasis under negation. This is the historical source predating the obligatoriness in type (i) above, as was first argued by Kuryłowicz (1971). Thus, many Bantu languages employ class 16 or 17 partitive (=locative) class markers under predicate negation (Devos and van der Auwera 2013; Persohn and Devos 2017: 20). For example, the partitive (=locative) particle =*khwo* in Luhya (Bantu) "serves to reinforce negation" (Persohn and Devos 2017: 20). So does the partitive-locative preposition m *in* Ancient Egyptian (Winand 2015: 539–540). The particle =*te* in Apma conveys an emphatic meaning in negated transitive sentences in Apma but is obligatory with the existential *bibi* 'to be' (Schneider 2010: 127, 168–169; cf. also Crowley 1982: 141 on Paamese; Budd 2014: 555–556):

(105)   Apma (Austronesian; Vanuatu)
         'What did you kill yesterday?'
    a. *Na=t=ba   ih   bamte   abma=nga.*
        1SG=PFV=**NEG** hit   make.die   **something**=**NEG**
        'I don't kill things.'
        (Schneider 2010: 169)
    b. *Na=t=ba   ih   bamte=te   abma=nga.*
        1SG=PFV=**NEG** hit   make.die=**PART** **something**=**NEG**
        'I didn't kill anything.'

While type (i) represents obligatorification of partitives in the context of predicate negation, the second type (ii) seems to predate the first one. The original emphasis under negation was produced by making a stronger claim than what would actually be sufficient in the context, cf.:

(106)   *Have you seen the dog with black paws here?*
    a. *No, I haven't seen that dog.*
    b. *No, I haven't seen any dog here.*

(106b) is a stronger statement than (106a) in that it entails the latter but not vice versa. This is due to the reverse entailments under negation: the weaker the

reference, the stronger the statement. If both options are available in the language, the stronger option is typically emphatic in that it provides more information than is actually requested. Generalized partitives are inherently indefinite and may pattern very similar to free-choice quantifiers such as *any* in (106b).

6.4 Event quantification and contribution to the aspectual interpretation

The ability of partitive-case alternations to affect the aspectuality interpretation of the predicate is, of course, very uncommon (Ö. Dahl in Koptjevskaja-Tamm and Wälchli 2001: 665). However, this is rooted in the fact that fusional case of the archaic Indo-European type is itself typologically rare, rather than in the very semantic mechanism that is actually quite common. Once partitives are defined semantically (9), many more partitives may be observed to interact with aspectuality in a quite uniform way. Thus, 10% of the marked partitives in my sample (Table 11 below) attest functions pertaining to the domain of aspectuality. This does not come as a surprise given that various strategies of P demotion (antipassives, incorporation, etc.) also have been observed to correlate with non-culminating events (Givón 2001: 168).

The aspectual meaning triggered by partitives is typically the *delimitative non-culminating* meaning comparable to English 'somewhat', 'for a while' or 'a bit' used adverbially ("delimitative" in the Slavic tradition, cf. Paducheva 1998; Mehlig 2006, 2007; Seržant 2014b; "partial completion" in Apma in Schneider 2010: 167; often translated as 'a bit' in a number of Bantu languages, Persohn and Devos 2017):

(107)   North Russian (Indo-European)
        Ja   otvorju   dverej
        1SG   open.FUT.1SG   door.GEN.PL
        'I will somewhat/partly open the door(s).'
        (Malyševa in Seržant 2015a: 388)

(108)   Finnish (Uralic)
        Hän   avasi   ikkunaa
        3SG.NOM   opened   window.PART.SG
        One of the interpretations: '(S)he opened the window (for a while/partly/
        somewhat).'
        (Kiparsky 1998)

Note, however, a slight difference between, on the one hand, North Russian, Russian (Mehlig 2006, 2007; Paducheva 1998; Paykin 2014; Seržant 2014b), Polish

(Wierzbicka 1967), Lithuanian (Seržant 2014a) and Finnish on the other hand. In the former group of languages, the partitive marking of the object triggers only the delimitative interpretation (i.e., to do something for a while and then stop without achieving the culmination) while, in Finnish, the partitive is less committal and expresses any kind of non-culminating accomplishments, including the progressive interpretation ('She was opening the window') alongside the delimitative interpretation ('She somewhat opened the window'). This means that the partitive marking interacts with aspect in the narrow sense in the first group of languages, i.e., it is compatible only with perfective verbs or imperfective iteratives that entail a series of perfective actions. By contrast, the partitive of Finnish only highlights the activity phase of an accomplishment verb, not differentiating between imperfective and perfective non-culminations (Seržant 2014b: 285, 2015a: 371–386).[39]

Similar aspectuality-related functions are also attested outside of Europe. For example, Rapa Nui has the partitive verbal degree modifier *'apa* 'somewhat, kind of' (Kieviet 2017: 340), cf. its argument-related (109) with the aspectuality-related usage (110):

(109)   Rapa Nui (Austronesian)
Ko 'apa rova'a mai 'ā te me'e pāreherehe matā.
PRF **PART** obtain hither CONT DET thing piece obsidian
'We obtained a few pieces of obsidian.'
(Kieviet 2017: 340)

(110)   Rapa Nui (Austronesian)
Ko 'apa ora 'iti 'ā a au.
PRF **PART** live little CONT DET 1SG
'I am somewhat recovered.'
*(*Kieviet 2017: 340)

Many languages of Vanuatu such as Apma, Araki, Bierebo, Erromangan, Lewo and a few others have partitive quantifiers with aspectuality-related functions (Budd 2014: 544–545; Early 1994; Schneider 2010: 167–170).

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39 Sometimes, somewhat misleadingly, the range of interpretations of a Finnish predicate is referred to as *imperfective*. This is probably rooted in the terminological confusion in the literature on aspectuality. In this paper, I take the notion of aspect to refer to *viewpoint aspect* with an opposition between perfective and imperfective aspect (*the bidimensional approach to aspectuality* in Bertinetto 1997; Smith 1997; Sasse 2002; just to mention a few). A Finnish VP containing a partitive-marked object may also have a perfective reading of doing something for a while and then stopping before the culmination, cf. (108). Building on Kiparsky (1998). I have argued elsewhere (Seržant 2014b: 285; 2015a: 386) that the partitive case in Finnish concerns marking a VP as culminating vs. non-culminating. It thus pertains to the domain of actionality rather than aspect.

Similarly, the partitive pronoun in Eibela may either quantify the referents of the pronoun, cf. the argument-related interpretation in (111b), or quantify the predicate, cf. the predicate-related interpretation in (111a). Example (111) runs fully parallel to the Finnish textbook example with *ampua* 'to shoot' (*inter alia*, Kiparsky 1998)[40]:

(111)   Eibela (Bosavi; Papua New-Guinea)
       nɛ:na: **i:jɛ:**   o:-mɛ:na:
       1DU   3.PART   shoot-FUT.1
       (a) 'We two will shoot at them.'
       or (b) 'We two will shoot some of them.'
       (Aiton 2016:119)

The delimitative meaning is also found in a number of Bantu languages when the locative-partitive class markers attaches to the verb (Persohn 2017a; Persohn and Devos 2017):

(112)   Ruund (Atlantic-Congo)
       ku-mw-iimikà-p
       INF-1-stop-LOC16**(=PART)**
       'to stop him for a minute'
       (Persohn and Devos 2017: 17)

Thus, the delimitative meaning sometimes affects not only accomplishment verbs but also some achievement verbs. The partitive particle *'apa* in Rapa Nui is also used in constructions that refer to after-effects of a preceding event in a iamitive construction[41] in combination with the adverb 'already' (Montgomery-Anderson 2008: 313). This is in parallel to the partitive genitive in North Russian and in Eastern Lithuanian dialects where it is used to quantify over the after-effects of an event of transfer (Seržant 2014a: 288–290, 2014b: 286).

The aspectuality-related function is sometimes extended to include two further functions: a modal, conative function[42] and a pragmatic one used as a politeness strategy.

The conative function is found, e.g., in Finnish. Outside of Europe, the conative function is found, for example, in Lewo, cf. (113).

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40 The achievement verb 'to shoot' is coerced into an accomplishment 'to shoot to death' in which the preparational stage is the very shooting event whereas the inherent endpoint is the moment of striking, cf. Seržant (2015a: 385).

41 Iamitive (introduced by Olsson 2013 and Dahl and Wälchli 2016: 327–328) is derived from Latin *iam* 'already' and refers to grammaticalized constructions that may be rendered into English with 'already'. The term has been introduced to distinguish these constructions from the semantically related category of perfects.

42 Sometimes referred to as *cessative*, especially in the Finnish tradition.

(113)   Lewo (Austronesian; Oceania)
       Ne-suña   na   sineun   sape na-kan re   kumpui.
       1SG-stayed now 1SG.wanted COMP 1SG-eat **PART** pork
    (a) 'After a while I wanted to eat a bit of pork.'
    (b) 'After a while I wanted **to try** eating some pork.'
       (Early 1994: 81)

The politeness function derives from the delimitative function on the prediacte ('a little bit', 'somewhat') and from the (pseudo-) partitive function on the object. These functions soften the content expressed by the predicate. For example, the partitive quantifier =ko (the pronominal type) in Oshikwanyama may also be used for politeness. In (114), it softens the hortative meaning and the intended meaning is to offer help by taking over some of the clothes (Halme-Berneking 2017: 147):[43]

(114)   Oshikwanyama (Atlantic-Congo; Angola, Namibia)
       Ha(nd)í-koshé=ko.
       1SG.wash-OPT=LOC(=**PART)**
       'Let me wash some (for you).'
       (Halme-Berneking 2017: 147)

The politeness function has been reported for Polish (Indo-European), Finnish dialects (Larsson 1983: 75), Hidatsa (Siouan; Park 2012: 481) a number of Bantu languages (Halme-Berneking 2017: 147; Persohn and Devos 2017) such as Fwe (Gunnink 2018: 132, 274).

    The syntactic types vary considerably as to their compatibility with the aspectuality-related functions. The NP-internal type in which the partitive marker resides within the argument NP (cf. (107)–(108)), is much less likely to have aspectuality-related functions than the pronominal type (cf. (109)–(114)).

Table 11: Syntactic types vs. aspectual functions (statistically significant).[44]

	NP-internal	Pronominal
Aspectuality-relevant	**5%** (5)	**32%** (8)
Irrelevant	**95%** (97)	**68%** (17)

43 Similar function of the so-called "partitive" quantifier =po is found in Nyakyusa (Bantu; Tanzania; Persohn 2017a: 159). However, this marker does not seem to be able to encode the true-partitive relation of the object which is why it was not included in the sample.
44 $p < 0.005$ (Fisher exact test).

Most probably this effect is related to the closer attachment of pronominals to the verb as opposed to NP-internal partitives that are highly integrated within the argument NP. Indeed, the partitive pronominals in a number of Vanuatu languages, for example, may occur immediately next to the verb (Budd 2014: 553–556). Compare *tuut* 'some' in Avava which occurs next to the predicate in (115):

(115)   *I-yan*   *tuut*   *emer*   *ki*
        3SG.R-eat   PART   eel   DEM
        'He ate some of the eel.'

Somewhat in parallel, the place class markers *ku-* responsible for the true-partitive interpretation is cross-indexed on the verb by the place marker *ko-* in (116) (as a kind of *alliterative concord*) in Luvale:

(116)   Luvale (Bantu)
        a-tambwile-ko   *ku-ma-nyina*
        1.PST-take-PST-PART(=cl17)   PART(=cl17)-6-blood
        'He took some of the blood.'
        (Persohn and Devos 2017: 22)

Many other Bantu languages frequently mark partitives only on the verb, and precisely these languages attest aspectuality-related functions (cf. Persohn and Devos 2017 also with a diachronic explanation).

Indeed, A-quantifiers that scope over the entire predicate generally tend not to be syntactically integrated under some NP (cf. Keenan and Paperno 2012: 948). Contrast the English quantifier *a lot* in its argument-related usage (117a) with the predicate-related usage in (117b):

(117)   a.   *He bought **a lot** of flowers*   vs.   b.   *He has been buying flowers **a lot***

6.5 Synopsis of the additional functions

I have illustrated above that generalized partitives tend to have additional functions alongside encoding the true-partitive relation. They may pattern as pseudo-partitives and may interact with predicate categories such as negation or aspectuality. These additional functions are, however, not equally frequent in the world's languages (Table 12).

The morphological homonymy between true-partitives and pseudo-partitives (48%) is a very frequent phenomenon that has to do with the universal tendency

Table 12: The frequency of related functions in the database (unmarked partitives excluded).[45]

True-partitive	Pseudo-partitive	Negation	Aspectuality
100%	**48%** (61/128)	**14%** (18/128)	**10%** (13/128)

towards coding syncretism of two different meanings: the true-partitive relation and plain quantification (see Section 7 below).

Another important result emerges from the figures in Table 12. The additional functions form an implicational scale such that only those partitives that may pattern as pseudo-partitives can have functions pertaining to predicate negation and/or aspectuality:

(118)   Functional scale of partitives
         Pseudo-partitives > Negation / Aspectuality

This is also supported by the fact – not visible from Table 12 – that partitives with functions pertaining to negation and/or aspectuality form a subset of the partitives that may pattern as pseudo-partitives in the database. Thus, semantic properties that are recruited during the grammaticalization of partitives into markers (co-) expressing predicate negation or aspectuality are properties of plain quantification found in pseudo-partitives, and not of the true-partitive relation.

Pseudo-partitives serve to denote a particular – often indefinite – quantity of a particular kind. Accordingly, pseudo-partitives have a similar effect on event quantification as other indefinite quantifiers like *somewhat* or *a little bit* in English. In parallel to English *a little bit*, pseudo-partitives acquire the ability to function as event measurers (*to work a little bit*) parallel to the nominal domain where they are object-measurers (*a little bit of tea*).

There is another piece of evidence for the claim that it is precisely the pseudo-partitive – and not the true-partitive – usage that leads to the manipulation of the aspectual interpretation of the verb and/or to the interaction with predicate negation. Markers that only have the indefinite-quantity meaning but cannot encode the true-partitive relation are also found to yield exactly the same, delimitative meaning on the predicate, while they do not have the meaning of the true-partitive relation at all. For example, the marker *-woh-* – not a partitive

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45 I have excluded the unmarked partitives (like lit. 'some us') because these are inherently indistinguishable from simple, non-proportional quantification (like *some people*). This leaves a total of 128. The difference between the pseudo-partitives and negation is statistically significant ($p < 0.001$) and the difference between negation and aspect is obviously not.

according to the definition (9) adopted in this study, but glossed as partitive in Evans (2003) – yields the delimitative meaning 'a bit, for a while' in Bininj Gun-Wok:

(119)   Bininj Gun-Wok (Gunwinyguan; Australia)
         nga-woh-dirri
         1-QUANTIFIER-play.NONPST
         'I'll play for a while.'
         (Evans 2003: 501)

The same applies to negation. Certain indefinite quantifiers that do not attest the true-partitive meaning are found to yield emphasis of negation. For example, the particle *-woh-* in the context of negation in Bininj Gun-Wok also yields emphasis (Evans 2003: 502). Similarly, the particle *=po* in Nyakyusa (Bantu; Tanzania) "strengthens the negation, yielding a meaning along the lines of 'not a bit' or 'no at all'" (Persohn 2017a: 158). To the best of my knowledge, neither of these markers is found with the true-partitive relation. Moreover, the locative class marker *-po* in Nyakyusa (in contrast to the partitive locatives in most other Bantu languages) has never been a true-partitive marker – it indirectly stems from a quantifier 'a little bit'.[46]

7 A universal trend toward syncretism of the true-partitive relation and plain quantification

In this section, I argue that there is a universal trend toward syncretism of two distinct meanings: the true-partitive relation and the plain quantification.

Above (Section 6.5), I have argued that 48% of all *marked* partitives in my database allow for the pseudo-partitive usage (Table 12), i.e., 48% of all marked partitives do not morphologically differentiate between the two meanings. This figure excludes all partitives encoded by the unmarked strategy. Yet, this strategy is inherently ambiguous between the true-partitive relation and plain quantification. Moreover, this is also one of the most frequent strategies (ca. 25% of all partitives in my database, cf. Table 4, Section 4.3.2 above). If one also adds the unmarked strategy, then the frequency of co-expressing these two meanings becomes even larger, i.e. 61% (104/171). Finally, implicit expressions are still another instance of the coding overlap between plain quantification and the true-partitive relation. Recall that implicit expressions combine the constructional means

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46 Originally, it was conditioned by the locative-class noun *panandɪ* meaning 'a little' (*pa-nandɪ* '16-little'), which was often dropped and the clitic *-po* alone started triggering the meaning 'a little bit' (Persohn 2017a: 157–158, 2017b: 68–69; Persohn and Devos 2017: 24).

regularly used for plain quantification with contextual inferences to yield the true-partitive interpretation (Section 2.2.2). Unfortunately, I do not have quantitative data on implicit expressions but, impressionistically, they seem to be very frequent crosslinguistically.

From this it follows that at least occasional resorting to the constructional means of plain quantification when encoding the true-partitive relation is a default, in fact, universal option. This option is available to different degrees across languages, depending on such factors as: the properties of the superset (e.g. less frequently with pronominal supersets) and on the presence of a fully grammaticalized partitive construction in the language.

I claim that the reason for this universal trend toward syncretism is that the true-partitive relation (e.g., *some of the students)* provides an "extra bit" of information with the superset (*the students*) that is rarely essential and, therefore, often need not be discriminated from the meaning of plain quantification (*some students*) at all. The relation of a referent to some superset (*anchoring*) is often irrelevant in the discourse and, even if not, may often be inferred from the context anyway. Indeed, the true-partitive relation is only very rarely explicitly coded in discourse even in languages which do have marked partitive constructions to encode the true-partitive relation. Thus, a small corpus survey of the Russian indefinite quantifier *neskol'ko* 'some' reveals that the probability of it occurring in the construction that explicitly encodes the true-partitive relation (based on the preposition *iz* 'from') is extremely low: ca. 1.6% of all its occurrences. This is despite the fact that this quantifier is among the most frequent ones to occur in this construction (cf. Table 1 above).[47]

8 Conclusions

In this paper, I have demonstrated that partitives take different shapes both in terms of syntactic structure and morphology. As for the former, there is a cline from – possibly less grammaticalized – partitives that do not require adjacency and form no constituency between the quantifier and the restrictor NPs, to partitives with rigid head-dependency relations with an adjacency requirement and, finally, to partitives in which both merge into a single prosodic unit. Since few grammars

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47 Among the first hits, excluding all irrelevant uses (such as the use as an adverb quantifier 'somewhat'), there were only two instances (1.6%) of it occurring in the subset of a partitive (marked with *iz* 'from') as opposed to 120 of simple quantification *neskol'ko čelovek* 'some people' (based on the Spoken subcorpus of the Russian National Corpus).

provide information on the syntactic properties of partitives, I could not create a statistically representative sample for these types, leaving this for future research.

Formally, there are different ways in how partitives may be coded (if at all). First, there are two syntactic types: The morphological marker may either be an NP-internal marker – most typically an adposition – or a partitive pronominal comprising partitive pronouns, quantifiers and particles. Furthermore, there are four main marking strategies: the unmarked, the possessive, the locative and the separative strategies, which may be further subdivided into more subtypes. The unmarked strategy yields the third syntactic type – juxaposition.

None of the combination of these types and strategies is universal. However, these marking strategies are not randomly distributed across the globe. I have argued that there are strong areal biases in their geographical distribution. First, Eurasia stands out with a clear bias towards NP-internal marking of partitives, dispreferring the unmarked strategy. Secondly, Eurasia strongly prefers the separative strategy among the NP-internal strategies. By contrast, Africa seems to prefer the locative strategy. Many Bantu languages attest this strategy (cf. Persohn and Devos 2017) in addition to a few Songhay, Dogon and Afroasiatic languages of the database.

Finally, I have examined additional functional facets of partitives alongside the true-partitive relation. Thus, partitives may also function as pseudo-partitives, (co-)express negation, hypothetical events and aspectuality. The compatibility with negation and aspectuality-related functions of partitives follows the cline in (118) repeated here as (120) for convenience:

(120)   Functional scale of partitives
          Pseudo-partitives > Negation / Aspectuality

The synchronic distribution of these functions in my sample suggests that negation and aspectuality are closely related to pseudo-partitives. This distribution also has a diachronic dimension (Seržant, submitted).

I have argued that partitives (co-)expressing aspectuality or predicate negation are generally not so infrequent. However, specifically NP-internal partitives are quite atypical with these functions. Thus, nearly one third of partitive pronominals attest these functions while less than one tenth of NP-internal partitives are found with these functions in my database. From this it follows that the Finnish partitive is not so unusual semantically in the crosslinguistic perspective in having aspectuality and negation-related functions. It is rather unusual in its combination of the locus of realization (NP-internally) and the versatility of the additional, clause-level functions (aspectuality, negation).

Finally, I have also made a universal claim. Even though many languages develop morphological devices for marking the true-partitive relation, there is a

universal preference for at least some degree of syncretism between the true-partitive relation and plain quantification. This preference holds with regard to both type and token frequency. Moreover, the syncretism is also crosslinguistically bi-directional. Thus, there is a universal trend for partitives to resort to the constructional means of plain quantification in terms of the unmarked strategy and implicit expressions (Section 7). And, vice versa, marked partitive constructions also tend to allow the encoding of plain quantification via pseudo-partitives (Section 6.1).

The reason for this universal trend towards morphologically shorter and syntactically simpler constructions, which are primarily used to encode plain quantification, may be explained in terms of coding efficiency. True-partitives provide an "extra bit" of information on the anchoring of the (subset) referent in some superset. However, an explicit anchoring is rarely needed because either the referent is definite anyway and/or the anchoring information can easily be guessed from the discourse. Only rarely must the relation to a superset be emphasized explicitly as the small corpus study from Russian clearly shows. In efficient communication, the meanings and functions that can anyway be derived contextually or that can be guessed on the basis of experience (frequency-based expectations) and/or previous discourse tend to be left unexpressed in order to save the articulatory and processing effort of the hearer and the speaker (Haspelmath 2008a, 2008b, 2008c).

Abbreviations (in addition to Leipzig Glossing Rules)

CF	counterfactual
COLL	collective
COMM	comment marker (in a topic-comment structure)
CONS	concessive

DISTR	distributive
EMPH	emphatic
EVT	eventual
EXC	exclusive
GL	goal
iis	incomplete intransitive status
INS	instrumental
MID	middle voice
NF	non-finite
NPL	non-plural
NONPST	non-past
NRLD	non-realized
OBLIG	obligative
POL	politeness marker
POSS	possessive
PRSP	prospective aspect
REF	reflexive/reciprocal
REL	relative
TRN	transitive
ST	stative
SUBEL	subelative case
SVN	subjective verbal noun

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