

Partitive Constructions and Partitive Elements Within and Across Language Borders in Europe

edited by
Elvira Glaser, Petra Sleeman,
Thomas Strobel, Anne Tamm



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Partitive Constructions and Partitive Elements
Within and Across Language Borders in Europe

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Partitive Constructions and Partitive Elements Within and Across Language Borders in Europe

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Abstract

The goal of this volume is to investigate the universal and varying properties of partitive constructions and partitive elements in some of the languages of Europe.

Partitives are by definition relational, as they encode part-whole relationships. They encode the part-whole relation between two sets of entities, and the entities belong to the same kind. For instance, in *some of these students*, *some students* form a part – in other words, a subset – of *these students*, which represents the whole, a larger set, and in other words, a superset: $\text{SUBSET/PART} \subseteq \text{SUPERSET/WHOLE}$. Both sets consist of members that can be identified as “students”, which sets partitives apart from other relations between sets.

The volume explores various concepts and linguistic expressions related to parts and wholes. It brings together researchers who work in diverging linguistic frameworks and academic traditions and use different methods. The volume sheds light upon the variation within partitives in closely related dialect continua as well as in their wider surroundings of contacts and mutual impact. It also looks at less studied subtypes of partitives, examines where the relation is marked within the constructions, how partitives interact with verbs, and which parts of the constructions are obligatorily or optionally overt or covert.

Since the expression of partitivity in Romance languages has been extensively discussed in recent literature, in this volume special attention is paid to other European languages, such as Germanic, Gaelic, Finno-Ugric and Slavic languages. The expression of partitivity that is discussed concerns partitive constructions, partitive articles, partitive pronouns, possessive partitive markers, and partitive case. It is shown that within and across language borders the expression of partitivity presents considerable variation.

With data from microvariation and variation that spans over vast geographical distances and involves various contact situations, this volume brings new insights into what is universal and what is particular in partitive constructions and elements in Europe. The volume presents papers that were presented at the PARTE workshop in Budapest in September 2022 or at the Partitive Online Talks.

Keywords Partitive. Subset. Superset. Partitive article. Partitive pronoun. Partitive case. Possessive partitive marking. Germanic. Uralic. Slavic. Irish.

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Preface

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The contributions that are part of this volume were presented at the 3rd PARTE Workshop entitled *Methods for Approaching Variation: Partitives and Beyond*, which was organised by Anne Tamm and her colleagues and took place at the Károli Gáspár University of The Reformed Church in Hungary, Budapest, from 15 to 17 September 2022 (the support of the KRE-BTK grant #20736B800 is acknowledged).

PORTE (PARTitivity in European languages) is a network of 11 research teams of theoretical linguists, dialectologists, sociolinguists, typologists, historical linguists and applied linguists at the University of Amsterdam, Meertens Institute KNAW, University of Zurich, Ca' Foscari University of Venice, University of Pavia, Károli Gáspár University (Budapest), University of Potsdam, Johannes Gutenberg-Universität Mainz, Goethe University Frankfurt, CNRS in Bayonne, and University of Turku.

The PARTE network originates in two workshops that were organised by Elisabeth Stark and her colleagues at the University of Zurich in 2014 and 2016. The collaboration between a number of researchers who participated in these workshops resulted in the PARTE project, which was funded by NWO (the Netherlands Organisation for Scientific Research, Grant 236-70-007) and co-funded by the Universities

of Zurich, Venice, Budapest and Pavia and was aimed at bringing together ongoing research on partitivity by the 11 partners together.

During the years, the PARTE network has informally been extended thanks to the workshops that were organised by PARTE members (workshops in Venice in November 2017, organised by Giuliana Giusti; in Pavia in September 2019, organised by Silvia Luraghi; in Frankfurt am Main in November 2019, organised by Cecilia Poletto and Francesco Pinzin; in Amsterdam (online) in December 2021, organised by Tabea Ihsane and Petra Sleeman; in Leipzig in September 2023, organised by David Paul Gerards and Désirée Kleineberg). Some of the chapters of this volume were presented at the online PARTE lectures, moderated by Anne Tamm.

PARTE members have also been involved in the publication of several volumes and special issues on partitivity or including contributions on partitivity, many papers and presentations at conferences, and in a database for partitivity data hosted by the University of Zurich.

The guest-editors of this volume are PARTE members Elvira Glaser, Petra Sleeman (Principal Investigator of the PARTE project), Thomas Strobel and Anne Tamm.

For the publication of this volume the guest-editors thank Giuliana Giusti, the editor-in-chief of *LiVVaL. Linguaggio e Variazione | Variation in Language*, for kindly accepting the proposal for this volume, which was submitted by Anne Tamm. We are also very grateful to Giuliana Giusti for approving the final manuscript and to the reviewers for their valuable comments and suggestions in the double-blind reviewing process.

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Introduction

Partitive Constructions and Partitive Elements

Petra Sleeman

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Abstract Whereas most languages have proper partitive constructions and pseudo-partitive constructions, not all languages have partitive elements like partitive determiners, partitive pronouns and partitive case. This Introduction serves to introduce these partitive constructions and elements, to briefly discuss their diachronic evolution, their morphological and syntactic expression and their occurrence in various languages and dialects. After the presentation of this background information, the essays that are part of the volume are introduced.

Keywords Proper partitive construction. Pseudo-partitive construction. Partitive determiner. Partitive pronoun. Partitive case.

For most persons who have learned Italian or French at school, the notion ‘partitivity’ will be associated with the term ‘partitive article’. These determiners, called *articolo partitivo* in Italian and *article partitif* in French, are illustrated in (1) and (2):

(1) *Ho visto dei ragazzi.*

I.have seen ART.PART.M.PL. boys

‘I have seen boys.’

(2) *L'enfant boit du lait.*

the child drinks ART.PART.M.SG. milk

‘The child is drinking milk.’



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For the partitive article in Italian in (1) it has been proposed in the literature (Chierchia 1998; Zamparelli 2008) that it is syntactically related to an overt partitive structure as in (3), containing a subset (*alcuni* ‘some’) and a superset (*[i] ragazzi* ‘(the) boys’):

- (3) *Ho visto alcuni dei ragazzi.*
 I.have seen some of.the boys
 ‘I have seen some of the boys.’

Cardinaletti and Giusti (2016), however, argue against the establishment of a relation between *dei* in (3) and *dei* in (1). Partly based on Storto (2003), who shows that (3) implies a larger set, whereas (1) does not, Cardinaletti and Giusti analyse *dei* in (1) as the plural counterpart of the indefinite article *un* ‘a’, with the interpretation of a plural undetermined quantity. A similar analysis for the French partitive article, as in (2), although in a more sophisticated syntactic framework, has been put forth by Ihsane (2013), arguing against the analysis proposed by Kayne (1977), which is comparable to Chierchia’s (1998) analysis for Italian, with a zero quantifier instead of an overt quantifier and with the superset analysed as a PP.

Cardinaletti and Giusti’s and Ihsane’s analyses are synchronic analyses that concern the partitive article in contemporary Italian and French. In a diachronic perspective, however, it has been argued that there is indeed a relation between the partitive article and a partitive structure as in (3). Luraghi (2013) shows that the construction that gave rise to partitive articles in Italian is an overt partitive structure without an overt quantifier already attested in Late Latin, which could be used as a direct object, as shown by the example (4) from the Old Testament:

- (4) *et ipse in nobis quoniam de Spiritu suo*
 and 3SG.NOM in 1PL.ABL because from spirit.ABL POSS.3SG.ABL
dedit nobis
 give.PRF.3SG 1PL.DAT
 ‘[We know that we live in him] and he in us, because he has given us of his Spirit.’ (1 John 4.13)

Luraghi and Albonico (2021) argue that the construction formed by *di* plus the definite article in Old Italian had already started undergoing grammaticalisation in the direction of the Modern Italian partitive article. The newly created partitive article started out in direct object position, but soon spread to indefinite post-verbal subjects. The Late Latin construction exemplified in (4) also gave rise to partitive determiners in French, and in the same way as in Italian (Carlier 2007; Carlier, Lamiroy 2014). The notion of partition set faded

away, with the notion of a non-specified quantity remaining. As a consequence, the partitive article acquired the new property of marking indefiniteness. As in Italian, the newly created partitive article in French started out in direct object position but soon spread to indefinite post-verbal subjects, as argued in Carlier and Lamiroy (2014). In modern Italian, contrary to French, however, the partitive article is not obligatory. Seržant (2021) calls this type of partitives, those with no explicit realisation of the subset referent, “generalised partitives”, referring to their diachronic development.

The partitive structures from which partitive articles developed are called “proper partitive structures” by Giusti and Sleeman (2021), “true partitives” by Seržant (2021) and “canonical partitives” by Falco and Zamparelli (2019). In this Introduction we will use the term “proper partitives”. As Koptjevskaja-Tamm (2001, 523) puts it, in this construction a part of something is taken. These constructions involve a presupposed set of items referred to by the superset noun phrase (Koptjevskaja-Tamm 2001), which, as such, is most often definite, as formulated in Jackendoff’s (1977, 113) Partitive Constraint. In Giusti and Sleeman’s (2021) definition of this construction, the subset may be expressed by a quantifier, as in (3), or a measure noun, as in (5).

- (5) *una tazza del tè che hai preparato*
 a cup of.the tea that you.have prepared
 ‘a cup of the tea that you have made’

In this type of partitive constructions, the superset may have a locative origin. According to Seržant (2021), the most frequent source of partitive markers are spatial adpositions (or case markers in languages that have case), such as adpositions that indicate an ablative relation ‘from, out of’, expressing the separative strategy (Koptjevskaja-Tamm 2001). Another strategy is the locative strategy, making use of the adposition ‘among’. A third strategy is the possessive strategy, making use of the adposition ‘of’.

This type of construction differs from the so-called pseudo-partitive construction (Selkirk 1977). According to Koptjevskaja-Tamm (2001), the pseudo-partitive construction is used to specify the amount of something. In Giusti and Sleeman’s (2021) definition, pseudo-partitive constructions are instantiated by measure nouns which quantify over an indefinite mass or plurality, as in the Italian example (6) and the French example (7). With this definition, pseudo-partitive constructions can be distinguished from quantifier constructions such as ‘some books’ (Giusti 2021):

- (6) *una tazza di tè*
 ‘a cup of tea’

- (7) *une bouteille de vin*
'a bottle of wine'

Not only partitive articles have been shown to have evolved from proper partitive structures: Koptjevskaja-Tamm (2001), Luraghi and Kitilä (2014) and Seržant (2021) argue that pseudo-partitives emerge from proper partitive structures as well. Separation strategies have given rise to proper partitive structures. Proper partitive structures have given rise to pseudo-partitive structures and also to partitive articles, as shown at the beginning of this Introduction.

For persons who have learned Italian or French at school, the notion 'partitivity' may also be associated with the term 'partitive pronoun'. The Italian partitive pronoun is *ne* and the French partitive pronoun is *en*. These partitive pronouns, which are rather clitics, can be used to replace each of the 'of'-phrases in (1)-(3) and (5)-(7). This is illustrated by the following examples from Italian. Sentence (8) illustrates that *ne* can replace the superset part of a proper partitive construction, as in (5), or a pseudo-partitive construction, as in (6), and (9) shows that *ne* can replace a noun phrase introduced by a partitive article, as in (1):

- (8) *Ne ho bevuto una tazza (del tè che hai*
PART.CL. I.have drunk a cup of.the tea that you.have
preparato; di tè).
made; of tea
'I have drunk a cup (of the tea that you have made; of tea)'

- (9) *Ne ho visti.*
PART.CL. I.have seen.M.PL.
'I have seen a(n undetermined) quantity of them.'

Ihsane (2013) shows that French *en* can assume the same functions as in Italian. According to Ihsane, the linguist Milner (1978) was the first to make the distinction between the two functions of the partitive pronoun for French that were illustrated in (8) for Italian. Milner calls *en* that replaces the superset of the proper partitive construction "partitive *en*" and *en* that replaces the superset of the pseudo-partitive construction, as in (7), "quantitative *en*".

In Germanic languages, partitivity is not completely expressed in the same way as in Italian and French. Whereas the proper partitive construction is expressed in the same way (although in German there may be case on the superset instead of a preposition), the expression of the pseudo-partitive construction depends on the type of Germanic language. English has an 'of'-construction (*a cup of tea*), but languages like German and Dutch do not use 'of', but juxtaposition (German: *eine*

Tasse Tee; Dutch: *een kopje thee*). Standard German and Dutch do not have a partitive determiner. They make use of bare nouns in sentences equivalent to (1) and (2). Standard Dutch has a pronoun with a partitive function. As in the case of Italian and French, a distinction has been made for Dutch between a quantitative pronoun, *er*, and a partitive pronoun, *ervan* 'of it/of them'. Whereas in Italian and French the distinction is only a semantic one, the clitics *ne* and *en* subsuming both functions, in Dutch there may also be a formal distinction, the distinction between *er* and *ervan*. Koptjevskaja-Tamm (2001) observes that the semantic borderline between the pseudo-partitive construction and the proper partitive construction is not watertight. The two questions "May I have a glass of wine?" and "May I have a glass of that wine?", expressed by someone who points at a bottle of wine, are quasi-synonymous in this situation. The same holds for the Dutch pronoun *er*. Besides a quantitative function, cf. (10), the Dutch pronoun *er* may also have a partitive function, similar to the pronoun *ervan*, cf. (11):

- (10) *Gisteren heb ik twee boeken verkocht. Vandaag heb ik*
 yesterday have I two books sold today have I
er drie verkocht.
 PART.WK. three sold
 'Yesterday I have sold two books. Today I have sold three.'

- (11) *Gisteren heb ik drie boeken gekocht. Vandaag heb ik*
 yesterday have I three books bought today have I
er twee gelezen / heb ik twee ervan gelezen.
 PART.WK. two read have I two of.which read
 'Yesterday I have bought three books. Today I have read two of them.'

Standard German does not have a partitive/quantitative pronoun comparable to Dutch *er*. However, it is argued by Glaser (1992; 1993) that standard German may use the pronoun *welch-* to express an undefined quantity. Strobel and Glaser (2020) state that the partitive-indefinite pronoun *welch-* presumably stems from its interrogative counterpart 'which (one)'. Both types of *welch-* are illustrated in (12):

- (12) *Nimm dir welche. Welche willst du?*
 take you WELCH- Which want you
 'Take some. Which ones do you want?'

Strobel and Glaser (2020) show that in modern German dialects there is quite a wide range of different syntactic means to express pronominal partitivity. One of these means is the use of null anaphora, occurring essentially in the Southwestern, primarily Alemannic, region (Glaser 1995, 69):

- (13) *I heet gɛɛɾn khɛɾfə, hɛdər Ø? Ja, doo sen Ø; nem dɛɾ Ø.*
 I would like cherries have.you Ø yes here are Ø take you Ø
 ‘I’d like some cherries, do you have any? – Yes, here are some; take some (of them).’

Another strategy mentioned by Strobel and Glaser (2020) is the use of the indefinite pronoun *ein-* ‘one’ in the Southeastern, originally Bavarian system. In other varieties of German, *ein-* is used to refer to a singular count noun, but in Bavarian it additionally may be used to refer to mass nouns and to plural entities (Glaser 1993, 107):

- (14) *Happts jō ði khafft? [Kartoffeln]*
 have.you already EIN.PL bought [potatoes]
 ‘Did you already buy some?’

Furthermore, Strobel (2017) as well as Strobel and Glaser (2020) show that in German dialects such as Central Hessian there exists a partitive pronoun *ere*, referring to plural entities, (15), and feminine singular mass nouns, (16), but that there is also a masculine and neuter singular counterpart *sen*, referring to mass nouns, (17). According to Strobel and Glaser (2020), these pronouns are mostly limited to a strip between West Central German and East Franconian.

- (15) *Hei sein ere! [Pilze]*
 here are ERE [mushrooms]
 ‘Here are some (of them)!’

- (16) *Mer hu ach Melch. Willst du ere?*
 we have also milk want you ERE
 ‘We have milk, too. Would you like some?’

- (17) *Soll eich sen holle? [Fleisch]*
 shall I SEN get [meat]
 ‘Shall I get some?’

Strobel and Glaser (2020) state that the German partitive/quantitative pronoun $(ə)r(ə)$ and the Dutch partitive/quantitative pronoun *er* are derived from third person genitive pronouns.

In non-standard Germanic varieties, not only partitive/quantitative pronouns (see also Glaser, Bart 2021a; 2021b; 2021c), but also forms similar to partitive determiners are found. Like the partitive/quantitative pronoun they are related to genitive case with a partitive function (Strobel, Glaser 2020). Strobel and Glaser (2020) give an example that occurs in Walliser and Walser German dialects, in which *deru/deschi* are genitive forms of ‘the’.

- (18) *Welleder nu deru/deschi Steina/Boone/Epfla?*
 want.you still the.GEN.PL stones/beans/apples
 'Would you like (some) more of these/such stones/beans/apples?'

Not only in German dialects partitivity may be expressed by case marking. Whereas in Romance and Germanic the partitive relation between the subset and the superset in the proper partitive structure is expressed by means of a preposition, 'of', in Armenian it is expressed by means of ablative case marking (Koptjevskaja-Tamm 2001, 528):

- (19) *mi gavat' ayd hamow surč-ic'*
 one cup.NOM that good coffee-ABL
 'one cup of that good coffee'

As Koptjevskaja-Tamm (2001) shows, in the proper partitive construction relative case is normally used in Finnish, although under special circumstances partitive case may also be used. According to Koptjevskaja-Tamm, the partitive is rather used to indicate the quantity of a substance, the noun receiving a "kind"-interpretation, whereas the relative is rather used to indicate a part of a predefined entity:¹

- (20) *Anna minulle pala tätä hyvää kakkua.*
 give 1SG.ALL bit.NOM DEM.PART good.PART cake.PART
 'Give me a bit of this good cake.'

- (21) *Anna minulle pala tästä hyvästä kakusta.*
 give 1SG.ALL bit.NOM DEM.ELA good.ELA cake.ELA
 'Give me a bit of this good cake.'

In the pseudo-partitive construction, in Romance languages and in English the preposition 'of' is used. There are also languages in which case marking is used. One such language is Finnish, in which partitive case is used in this construction, as shown by Koptjevskaja-Tamm (2001, 531):

- (22) *Osta säkki perunoita!*
 buy.IMP.2SG sack.NOM potato.PART.PL
 'Buy a sack of potatoes!'

Koptjevskaja-Tamm (2001) shows that Russian makes use of genitive case, both in the proper partitive construction, as in (23), and in the

¹ Koptjevskaja-Tamm 2001 does not make a distinction between the English translations of the two sentences.

pseudo-partitive construction, as in (24). Daniel (2014) as well as Ter-Avanesova and Daniel (2023) show that in the pseudo-partitive construction, some nouns can show a special form of the genitive, the so-called “second genitive”, illustrated in (25). Koptjevskaja-Tamm (2001) labels this second genitive as “partitive”.

(23) *čaška etogo vkusnogo čaja*
cup.NOM DEM.GEN good.GEN tea.GEN
'a cup of this good tea'

(24) *čaška čaja*
cup.NOM tea.GEN
'a cup of tea'

(25) *čaška čajju*
cup.NOM tea.GEN2 / PART
'a cup of tea'

Whereas Italian and French make use or can make use of partitive articles to express indefiniteness with mass nouns and plural nouns, while in Germanic normally bare nouns are used, there are also languages in which partitive case is used to express an undetermined amount. Luraghi and Kittilä (2014, 19) show that, in Finnish, partitive case can be used to indicate partial objects (26), while total objects are expressed by means of the accusative (27). This illustrates the role of quantitative unboundedness in the expression by partitive case in (26) and quantitative boundedness in the expression by accusative case in (27):

(26) *Aino sö-i leipä-ä.*
Aino eat-PST.3SG bread-PART
'Aino ate (some of the) bread.'

(27) *Aino sö-i leivä-n.*
Aino eat-PST.3SG bread-ACC
'Aino ate the (whole) bread.'

Quantitative (un)boundedness may also play a role in the expression of the subject in an existential sentence, as shown by Huumo (2021), although the subject indicating a bounded quantity in (28) is in the nominative case and not in the accusative case, as in (27), whereas the subject indicating an unbounded quantity is again in the partitive case (29):

(28) *Pöydä-llä on kirja.*
table-ADE be.PRES.3SG book.NOM
'There is a book on the table.'

(29) *Pöydä-llä on kirjo-j-a.*
table-ADE be.PRES.3SG book-PL-PART
'There are books on the table.'

Huumo (2021) shows that the use of partitive case in Finnish may also be in relation to the non-culmination of the event. In (30), partitive case on the object signals a non-culminating, atelic, interpretation of the event, equivalent to progressive aspect. In (31), the accusative object signals that the event is telic and reaches its culmination. Since the verb in (31) is in the present tense, this results in a future reading with regard to the culmination, according to Huumo.

(30) *Lue-n kirja-a.*
read-PRES.1SG book-PART
'I am reading a/the book.'

(31) *Lue-n kirja-n.*
read-PRES.3SG book-ACC
'I will read a/the book (completely).'

Furthermore, Huumo (2021) shows that negation triggers the partitive:

(32) *E-n lue kirja-a.*
NEG-1SG read.CNG book-PART
'I am not reading a/the book.:', 'I will not read a/the book.'

In Italian and French, partitive articles started to be used in object position, but later also spread to other functions. However, in subject position the use of the partitive article is much more restricted than in object position, both in Modern Italian and in Modern French (Bosveld-de Smet 1998; Luraghi, Albonico 2021). In Finnish, the use of partitive case is also extending to subjects. Huumo (2003; 2018) states that in Finnish partitive subjects in most cases have an existential interpretation and occur with unaccusative verbs, as in (33), but that they are also extending to other types of verbs, such as unergative and transitive verbs. In (33), partitive case expresses indefiniteness. Definiteness in the same context is expressed by nominative case, as in (34). The examples are taken from Luraghi and Kittilä (2014):

- (33) *Nais-i-a tul-i koti-in.*
 woman-PL-PART come-PST.3SG home-ILL
 ‘Some women came home.’
- (34) *Naise-t tul-i-vat koti-in.*
 woman.NOM-PL come-PST-3PL home-ILL
 ‘The women came home.’

The alternation in (26)-(27) and (30)-(31) has been called Differential Object Marking (DOM), being associated with optional object marking in languages like Spanish, where certain types of objects are preceded by *a* (Iemmolo, Klumpp 2014). Chappell and Verstraete (2019) call the case alternation type DOM and the Spanish type Optional Case Marking. De Hoop and Malchukov (2008) call the first type symmetrical DOM, whereby all objects are marked, but take different cases, and the second type asymmetrical DOM, whereby certain objects are unmarked while others are marked. Luraghi and Kittilä (2014) show, however, that the partitive does not only alternate with the accusative, but also with the nominative and that the term Differential Object Marking is therefore not completely correct. The alternation in (28)-(29) and (33)-(34) would rather have to be called Differential Subject Marking (DSM). Object or subject case alternation to express definiteness versus indefiniteness does not only occur in Finnish. Luraghi (2023) studies the alternation between the accusative and the genitive to encode the second argument with experiential verbs in Ancient Greek. Conti and Luraghi (2014) state that in Ancient Greek, as in other Indo-European languages that allow them, partitive genitive subjects essentially occur in existential clauses with the verb ‘be’ or with unaccusative verbs. Metslang and Habicht (2023) show that in Estonian the object may appear in the partitive, the genitive or the nominative, depending on a Differential Object Marking system in which important factors influencing object case usage are aspect, quantitative boundedness of the object referent, and the polarity of the sentence.

The essays that are presented in this volume all reveal new research on aspects of partitivity that had not been researched yet, or they add new insights. While much research on partitivity in recent edited volumes has (partially) focused on Romance languages (Falco, Zamparelli 2019; Ihsane 2020; Ihsane, Stark 2020; Sleeman, Giusti 2021; Pinzin, Poletto 2022; Luraghi, Sleeman 2023; Sleeman, Tamm forthcoming), this volume contains research on languages in which the expression of partitivity has not been researched to such an extent: Uralic languages, Ukrainian, Irish Gaelic, Standard and sub-standard German, dialectal varieties of German and Belgian Dutch. The methods that are used are corpus research (digital dictionaries and databases) as well as Grammaticality Judgment Tasks and

Translation Tasks submitted to native speakers. The essays have been thematically grouped together, starting with some essays on pseudo-partitive and proper partitive constructions, followed by an essay on partitive pronouns and ending with two essays on case alternation/Differential Object Marking.

In her essay “The Indefinite Article as an Exponent for Partition”, Ellen Brandner investigates the use of the indefinite article with mass nouns in some Southern German dialects. With the help of questionnaires containing a Translation Task and a Grammaticality Judgment Task, data from Alemannic speakers were elicited. Based on the results, Ellen Brandner argues that *ein*-mass nouns are interpreted as subkinds. A fine-grained syntactic analysis is proposed.

Alexander Pfaff, in his essay “Pseudo-Partitives and Individuation: A Study on Adnominal Genitives in German”, investigates the acceptance of the use of genitive case for the juxtaposed superset in pseudo-partitive constructions in standard German. This research, executed with the help of a Grammaticality Judgment Task submitted to native speakers of German, confirms earlier research that claims that the acceptability of the use of the genitive is essentially limited to pseudo-partitives containing a plural noun preceded by an adjective, as in *eine Gruppe ausländisch-er Studenten* ‘a group (of) foreign-GEN students’. The results, however, also suggest that individuation plays an important role in the acceptance. The use of the genitive is rated much higher if the superset contains a noun referring to an individual than when it refers to food.

In her contribution “Corpus Perspectives on Some Irish Gaelic (Pseudo-)Partitives”, Dóra Póddör studies some quantificational and partitive structures in Irish Gaelic. Literature on partitivity in Irish is scarce. The data were collected on the basis of an online corpus and online dictionaries. Three constructions are investigated: quantificational constructions such as ‘a little of French’, a pseudo-partitive construction with *cuid* ‘part, portion’ and a body part, and a partitive construction with nouns functioning as personal numerals that are used for counting people, as in ‘three people/persons of children’ (= ‘three children’). The results of the research are presented in a quantitative and qualitative way.

In their essay “Possessive Partitive Strategies in Uralic: Evidence from Mari and Hungarian Quantifiers and Inflected Adpositions”, Gabriella Tóth, Kata Kubinyi and Anne Tamm analyse proper partitives in Hungarian and Mari, where possessive agreement with the superset appears on the quantifier that represents the subset or the postposition that links the subset to the superset. Hungarian and Mari differ in where the possessive suffix that indicates the number and person of the superset can or must occur in proper partitive structures.

In her essay “The Partitive Pronoun ER in Two National Varieties of Standard Dutch”, Petra Sleeman investigates the acceptance, by

native speakers of Netherlandic Dutch and Belgian Dutch, of the use of the partitive/quantitative pronoun *er* with a broad range of elliptical NP types. These include NP types for which national variation is signalled in the Dutch Reference Grammar, but also NP types not described in the sections on *er* of that grammar. The results show that the acceptance of *er* by the two groups of participants differ in various contexts, but that, in the case of variation, the variant that is preferred by the Netherlandic Dutch participants is also accepted to some extent by the Belgian Dutch participants.

Rodolfo Basile, in his contribution “‘I Am Also Found on Facebook’. Locuphoric ‘Find’-Based Strategies in Finnish Internet Corpora”, investigates the (frequency of) use of locuphoric forms (1st and 2nd person) of the existential verb *löytyä* ‘to be found’. In his digital corpus study he found that in the existential reading, locuphoric forms with this verb form are (marginally) used to signal the speaker’s or addressee’s presence on the Internet. While in this case the locuphoric forms may only be used in the nominative case, Rodolfo Basile also investigated competing constructions with the verb *löytää* ‘to find’, namely the Impersonal and the Impersonal Passive constructions, where the agent is not expressed and the patient is susceptible of nominative-partitive alternation. The corpus data revealed that accusative case on locuphoric forms was preferred in these constructions, although partitive case was not excluded.

Natalia Lehka, Lesia Chaika, Anne Tamm and Natalia Vaiss study genitive-accusative case alternation in Ukrainian, a lesser studied Slavic language, in their contribution “Ukrainian Aspect and Object Case in ukTenTen: The Partitive Genitive of Perfective Verbs and Mass Nouns”. The goal of their study is to establish the patterns of usage of the Ukrainian (partitive) genitive and accusative object. The corpus that they use is a Ukrainian corpus extracted from Sketch Engine, and it contains texts from 2020 that were collected on the Internet. The authors study the relation between case and perfective/imperfective verbs, the influence of Aktionsart-prefixes on case alternation and the relation between concrete and abstract nouns and case alternation. As expected, verbal prefixes and nominal properties matter for the emergence of partitive genitives. However, also imperfective verbs have partitive genitive objects, whereby abstract mass nouns are more frequent than concrete mass nouns, and aspect does not influence the case of abstract mass nouns.

Abbreviations and Notations

ABL	ablative
ACC	accusative
ADE	adessive
ALL	allative
ART	article
CL	clitic
CNG	connegative form
DAT	dative
DEM	demonstrative
ELA	elative
GEN	genitive
ILL	illative
IMP	imperative
M	masculine
NEG	negation
NOM	nominative
PART	partitive
PL	plural
POSS	possessive
PRES	present tense
PRF	perfect
PST	past tense
SG	singular
WK	weak

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**Partitive Constructions and Partitive Elements
Within and Across Language Borders in Europe**

edited by Elvira Glaser, Petra Sleeman,
Thomas Strobel, Anne Tamm

The Indefinite Article as an Exponent for Partition

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Abstract The essay deals with the phenomenon of the indefinite article occurring with mass nouns of the type *I brauch a geld* (literal translation: 'I need a money'), inducing a partition reading for a vague amount. After a survey of its distribution in the Southern German dialects Bavarian and Alemannic, based on a large-scale empirical investigation, the essay focuses on the fine-grained distinction between subsets and subkinds whereby the latter occur with the indefinite article in all variants. A fine-grained functional structure is suggested where the respective functional heads are immediately adjacent, giving rise to the possibility of extending the indefinite article to subsets.

Keywords Indefinite article. Mass noun. Partition. Subkinds. Kinds. Alemannic. Bavarian.

Summary 1 Introduction. – 2 The SynAlm Project. – 2.1 Background. – 2.2 The Questionnaires. – 2.3 The Informants. – 2.4 The Results. – 3 The Phenomenon and Its Occurrence in Alemannic. – 3.1 The Distribution of the IA+Mass in Alemannic – a First Look. – 3.2 The IA+Mass as Replacement of Genitive Marking?. – 3.3 Doubling of the Indefinite Article. – 4 More Data. – 4.1 The Relevance of the Verbal Predicate – Kinds and Subkinds Again. – 4.2 Mass Nouns in Generic Statements. – 4.3 Varying the Verbal Predicate. – 5 Theoretical Discussion. – 6 Conclusion.



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1 Introduction

Partitivity, i.e., division in its broadest sense, ranging from simple subset/superset relations of substances ('a bit of wine') to part-whole relations ('the roof of the house') is not only a multi-faceted conceptual phenomenon, but also shows a huge variety in its morpho-syntactic manifestations: both across languages and within one language. Whereas some languages stick to a rather uniform marking of these relations, e.g., 'of'-insertion in English, others show a variety of means, using different cases (genitive, partitive, elative), different prepositions or agreement phenomena; see for a recent overview the contributions in Sleeman and Giusti (2021).

Against this background, I will discuss a morpho-syntactic manifestation of partitivity by inserting the indefinite article *ein-* (IA) before a mass noun, yielding a kind of partitive meaning in the sense that a contextually salient (vague) amount of money is intended:¹

- (1) *Host a geld dabei?*
have-you IA money with(you)
'Do you have (any) money with you?'

This phenomenon, IA+mass in the following, is attested in various Southern German dialects (Bavarian, Alemannic) and its distribution as well as its closer examination concerning the different environments in which it occurs as well as a possible syntactic analysis, is the main topic of this essay. One important issue will be to distinguish it from other constructions that involve either a mass noun or an indefinite article. For example, how do mass nouns behave when they are used in generic statements? What is the role of the verbal predicate and what happens if it is varied in aspect (episodic vs. habitual)? Are there neighbouring constructions that might look very similar but have a different interpretation and thus also syntax? For example, a closely related construction, namely what is often discussed in the context of 'indefinite determiner doubling', as in *a so a (gueter) Wein* (= a such a (good) wine 'such a good wine') has to be treated in different terms, see already Strobel and Weiß (2017). Thus, I will illustrate in the following

¹ I would like to thank Alexandra Rehn, Mahena Stegmann (from the former SynAlm project), Ljudmila Geist, Alexander Pfaff, and my colleagues from Stuttgart (Daniel Hole, Judith Tonhauser) for helpful comments and discussion. Also thanks to the audience at the PARTE-workshop, held in Budapest, September 2022, as well as two anonymous reviewers. Special thanks go to Thomas Strobel. Parts of this work are funded by the DFG under project number 465419462. I will discuss here only that kind of partitivity which is realised within one functional projection of a nominal, i.e., what comes close to pseudo-partitive, and what is called in the literature 'proper partitive', including two distinct nominal projections, will not be discussed.

how the differing readings and interpretations of the indefinite article in the context of mass nouns can be evoked when gathering data in a large-scale dialect project, working with written questionnaires. The main problem with written questionnaires is to control for the context, i.e., how to avoid that speakers can nevertheless have in mind another, non-intended meaning. Some cases where this obviously had happened, will be discussed in Section 4, together with some suggestions as to how this can be avoided in future work. The rest of the essay is structured as follows: Section 2 gives some background on the SynAlm project, concentrating on the methods used in this project. Section 3 describes the phenomenon in more detail, whereby some first results are used to illustrate the range of variation found. Section 4 then is devoted to the neighbouring constructions, and as already mentioned, some of the puzzling results give rise to suggestions how to better control for the context. In Section 5, I will suggest an analysis of the data within an exo-skeletal approach, Borer (2005), with a fine-grained sequence of functional projections which is able to capture the different interpretations as well as the different lexicalisations in the respective dialects by locating the variation in the lexicon.

2 The SynAlm Project

2.1 Background

The project **Syntax des Alemannischen** ran from 2011-2016 at the University of Konstanz and was funded by the DFG.² It was informally connected to other Germanic dialect syntax projects that ran during nearly the same time, namely SyHD³ (Syntax of Hessian dialects) and SADS⁴ (Syntaktischer Atlas der deutschen Schweiz). It was also part of the EdiSyn⁵ network. All these projects were interested in a detailed description of various syntactic phenomena, among them the morpho-syntax of infinitivals, possession, relative clauses, prepositional adverbs, adjectival inflection, and the use of determiners, including the partitive construction mentioned above. For some constructions, including the use and form of partitive pro-forms, the very same test-sentences were tested in SyHD, SADS and SynAlm projects alike. Other phenomena that are more Alemannic-specific, e.g., certain particles in infinitival constructions, see, e.g., Brandner and Salzmann (2012),

² <https://gepris.dfg.de/gepris/projekt/198350616>.

³ <https://www.syhd.info/startseite/index.html>.

⁴ <https://dialektsyntax.linguistik.uzh.ch/>.

⁵ http://www.dialectsyntax.org/wiki/Projects_on_dialect_syntax.

got of course more room in SynAlm. SynAlm was preceded by a smaller dialect syntax project which was part of the SFB 471 at the University of Konstanz.⁶ This in turn was preceded by several pilot studies.

One of the most important insights from these smaller studies was that it is very well possible to get robust results by directly aiming at the native speaker's competence by offering whole 'batteries' of carefully controlled variations on one construction. Versions of a construction for which it is highly likely that they are ungrammatical were included in these batteries nevertheless, in order to obtain explicit negative evidence. Especially in the area of dialectal research, it is very important to follow the guideline that the absence of positive evidence does not necessarily imply negative evidence.

Based on our own as well as on the experiences from other dialect syntax projects, we used from the start the so-called "layered method" (Cornips, Poletto 2005). The data on a specific topic were gained in several rounds such that later questionnaires could react on the results of a former one. This means that the relevant construction was usually first presented in the form of a translation task, i.e., the sentence was given in the standard language and the task for the informants was to translate it into his/her dialect. In a later round then, the various versions given to us were presented to all informants in the form of a judgment task.

2.2 The Questionnaires

Seven questionnaires (*Fragebogen* 'questionnaires', FB in the following) were designed and each one had one main morpho-syntactic topic. This topic was investigated in great detail with mostly judgment tasks. In order to make the questionnaire not 'too boring' for the informants, these tasks were interrupted by translation tasks for the topic of one of the next questionnaires. The results and the careful analysis of these translation data gave us a first overview of the deviations from the standard.⁷ These versions were then offered, systematically varied as mentioned above, to all speakers in a later round as a judgment task. The first FB contained thus many translation tasks

⁶ A short description can be found under <https://ling.sprachwiss.uni-konstanz.de/pages/proj/sfb471/proj-kurz/A-17.html>.

⁷ The translated sentences were directly transferred into Excel while keeping all the orthographic devices the informants used to come as close as possible to the 'real' dialect version. From these we created a normalised form to build the basis for categorisation. Categorisation means that every example got 'annotations', e.g., in the case of the IA+mass, it was annotated in different columns whether the informant had inserted an IA or not (no; yes), which form it took (e.g., the vowel), and further properties. These then are the basis for the maps, see below.

for different constructions. Concerning determiners, FB3 contained some translation tasks and FB5 had as a main topic the form and distribution of determiners with the focus on generic readings. Most of the data in this essay stem from these two FBs.

In SynAlm, we used in most cases a 5-point Likert scale with 1 = best (dark green) and 5 = worst (dark red) on the maps below. As dialect speakers sometimes hesitate to rate a ‘strong dialectal’ version as perfectly fine – due to the still negative attitude towards the dialect –, we additionally used a 3-point scale with the values 1 = I use it myself; 2 = I hear it from others/it is known to me; 3 = I never heard it. Thus, with the 2-judgment, speakers were not committed to their own usage – but a high amount of 2-judgments indicates that the construction in question is vivid. There were also simple binary Yes/No judgment tasks, but in later rounds, we refrained from these, as the 5-point scales deliver much more useful results that can be interpreted from different angles, e.g., by taking into account strong vs. weak rejection. Besides these judgment and translation tasks, there were also choice tasks. E.g., in a sentence with a mass noun, the speakers simply had to mark whether they would insert a definite article, an indefinite one or no article at all. In all the judgment tasks, the speakers had the possibility to give an ‘own version’, in case none of the offered versions suited them. In case yet another version occurred in these ‘own versions’, it was offered again to all speakers in a judgment task in a later round. Ideally, all constructions should have gone through these production/rating procedures – however this could not be achieved for all of them, due to limitations of time and resources. Nevertheless, for a considerable amount of constructions, we gained data according to this procedure. The rather drastic differences between the results of different tasks can be seen below in Section 3.

2.3 The Informants

As said above, SynAlm had limited resources, especially if one considers the area covered, see the maps below. Thus, compromises had to be made concerning recruiting and selecting the informants. SynAlm could not reach the density of locations as SADS or SyHD. Specifically, it could not be ensured that there are always several speakers per location. Furthermore, as is to be expected for such a long-term project, the number of informants decreased during time. Expecting this situation when sending out a new questionnaire, several exemplars were sent to one already recruited informant such that s/he could pass them over to new informants in their location (snowball system). Due to this, the decrease was not so dramatic (from 1000 speakers from the first round to 516 in the seventh) and the area covered could be kept constant until the last round. But this

procedure comes of course with the cost that there are partially different speakers for different questionnaires. But a substantial number of informants filled out all the questionnaires. Still, when interpreting the maps and also the numerical results, it should be kept in mind that small deviances could also be an effect of this situation.

2.4 The Results

The results of SynAlm can be found in a database⁸ together with the questionnaires (only in German). In the database itself, the examples are translated into English and the numerical results as well as (dynamically created) maps for each question can be found. This is executed via an XML database with a Graphical User Interface (GUI), developed by ourselves. The maps there are rather preliminary and serve more to get a first impression. The SynAlm maps will all be published in the near future at the “Forschungszentrum Deutscher Sprachatlas” and the first volume (*Nominal Syntax*) is already published.⁹ The maps are taken from there [maps 1-4].

After this short description of SynAlm and how the data were gained, let us turn now to the phenomenon under discussion, namely the IA+mass in Alemannic.

3 The Phenomenon and Its Occurrence in Alemannic

3.1 The Distribution of the IA+Mass in Alemannic – a First Look

It is well documented in the literature that in Bavarian dialects, the indefinite article *ein-* can occur together with a mass noun, as illustrated in (1) above. Usually taken as a genuine Bavarian property, it could be shown already in the project “Atlas zur deutschen Alltagssprache” that the construction occurs in the neighbouring Alemannic dialects as well.¹⁰ In the project Syntax of Alemannic (SynAlm), this construction was tested with a translation task and with a judgment task. In order to get a first impression about the distribution, consider the first two maps [maps 1-2].

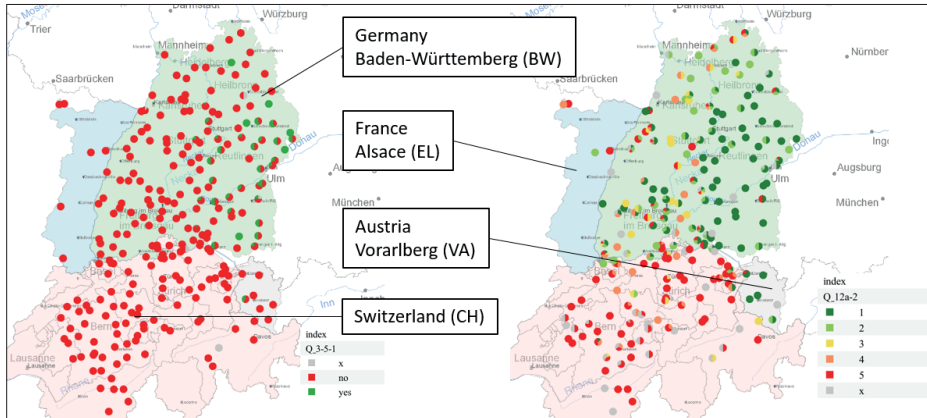
A quite similar distribution was found when the mass noun was construed with a weak quantifier of the type *ein wenig ein Wasser* (‘a bit of water’) [map 3].¹¹

⁸ On <https://ilg-server.ling.uni-stuttgart.de/synalm/html/>

⁹ Under <https://regionalsprache.de/synalm.aspx>

¹⁰ See the map under <http://www.atlas-alltagssprache.de/runde-3/f08d/>.

¹¹ There was no translation task for the corresponding sentence [map 3].



Maps 1-2 IA+mass in translation task; IA+mass in judgment task

Sentence for Map 1 and Map 2:

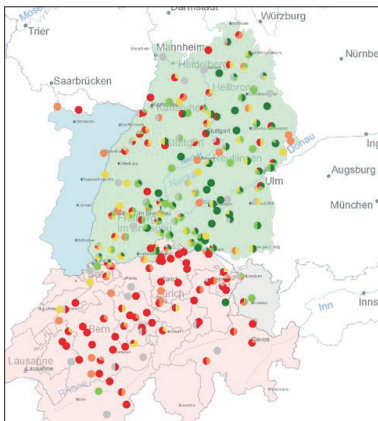
Habt ihr noch (ein) Mehl im Haus?

Have you.PL still (a) flour in.the house

‘Have you still some flour at home?’

Map 1 Results from FB3, Q 3-5-1, n = 757

Map 2 Results from FB5, Q 12a-2, n = 517



Map 3 IA with mass noun, preceded by a weak quantifier (*ein wenig*) in judgment task

Sentence for Map 3:

Hätten Sie mir ein wenig ein Wasser für den Hund?

Had you me a bit a water for the dog?

‘Could I have some water for the dog?’

Map 3 Results from FB4, Q 4-1, n = 591

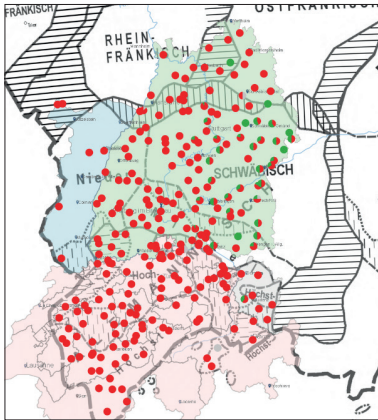
Considering first the difference between Map 1 and Map 2, it shows how important it is to use different types of tasks when dealing with dialectal data. If only one task had been used, one would either conclude that the IA+mass construction is generally accepted in the Alemannic variants spoken in Germany (green background, BW-Alemannic henceforth) but essentially completely rejected in Switzerland (red background, CH-Alemannic) [map 2].¹² But Map 1 with the translation task would suggest that there is only one small area, immediately adjacent to Bavaria, where this construction occurs. In the latter case, the natural conclusion would be that it is an effect of ‘language contact’, that means speakers living near to the border of Bavaria – where this construction is prevalent – simply ‘took it over’, as these speakers are plausibly more often confronted with Bavarian speakers. Note that the few green dots in CH on Map 2, are all very close to the German border, indicating again that the construction in question is highly susceptible of ‘taking over’. I will take up this issue in Section 5, see also fn. 7.

This kind of seemingly contradictory results can be taken nearly as a textbook example of the “Decathlon model” in action, see Featherston (2005). According to this model, a native speaker of a given language has various options in his/her internalised grammar – with the effect that acceptance rates are always much higher, reflecting the different grammars.¹³ In a production task in contrast, there can be only ‘one winner’. I.e., the speaker must actively discriminate between the two or even more various possibilities. This choice is often influenced by outer-linguistic factors like prestige, closer to the written standard, or even ‘in-group-effects’. For the usefulness of this approach to variation and how the differing results from different tasks can be exploited also for theoretical questions concerning the modelling of syntactic variation, see Rehn and Brandner (2022).¹⁴

12 The blue background covers Alsace, a region in France where Alemannic is (still) spoken. Since the number of informants is very small, this region will be left out in the following discussion. The same holds for the region Vorarlberg in Austria. However, note that these speakers did not actively produce IA+mass, but the acceptance rate is very high.

13 Whether this situation is due to some inherent underspecification in the grammar of natural languages per se or to multilingualism in a broad sense, i.e., knowledge about or confrontation with the various dialectal variants, must be left open here. Note that speakers can in principle rate two or more distinct versions as equally good, which would involve then true optionality. And indeed, there were some speakers who rated all three versions of a generic statement with a mass noun (i.e., indefinite/definite/zero article) with 1, i.e., the best rating. But to draw serious conclusions from this observation, a much more detailed statistical analysis is required.

14 See also Brandner 2020 and the references cited therein for a discussion of the impact of the political borders on dialectal phenomena. There, the attempt is made to correlate different types of variation with different types of areal patterns. Clear cases of the relevance of the political border mostly affect lexical phenomena (e.g., different



Map 4
Results of the translation task with sub-division
of Alemannic as background

Zooming further in, one might suspect at first sight that the distribution follows the traditional sub-division of Alemannic into Swabian (Schwäbisch on the map), High Alemannic (Switzerland and the most South Western part of BW) and Low Alemannic in the more northern part of BW. But if we put the results of the translation task [map 1] on a map with this historical division, one can see that only the eastern part of Swabian is affected. On the other hand, the rejection rate of the construction should be much higher in the High Alemannic region in BW – if the distribution would follow the traditional sub-division. Thus, in the following, I will draw the line between CH-Alemannic and BW-Alemannic instead of the traditional sub-division.

Now if we look at Map 3, the construction with the weak quantifier *a weng* (= ‘a bit’), the lighter green dots (meaning 2 on the Likert scale) and the yellow ones (3 on the Likert scale) show up more frequently in BW-Alemannic than in Map 2 with the unquantified mass noun. Nevertheless, rejection (dark red) is sparse in contrast to CH-Alemannic. But a closer look at CH reveals less rejection of this particular construction.¹⁵ Thus, this slight change in construal (additional quantifier) seems to have an effect.¹⁶

verbs or nouns for the same concept); syntactic phenomena like the order in a 3-verb cluster on the other hand correlate much more with the traditional sub-division(s). The lexicon, as that part of the grammar that is highly accessible to ‘conscious decisions’, cf. the discussion around the Decathlon model, is thus the place where on the one hand contact phenomena are to be expected – but on the other where they may cross-cut the traditional divisions.

15 In fact, 3-judgments (yellow dots) is 9% with this construction, but only 4% with the IA+mass without the quantifier.

16 One could object now that these small differences result from the bias with the different numbers of informants discussed above. However, note that FB5 [Map 2] is later

In sum, the following picture emerges:

- active production of IA+mass is confined to a small area near the Bavarian border
- acceptance is high essentially throughout BW-Alemannic - but not in CH-Alemannic
- acceptance decreases with a quantifier in BW-Alemannic - but increases slightly in CH

Given these findings, the following questions emerge:

- is there a parametric syntactic difference between these variants? Has the DP a more complex structure in Bavarian and BW-Alemannic in contrast to CH-Alemannic?
- is there a lexical difference in the sense that the IA has a different semantic specification in the two variants respectively?
- what is the effect of the weak quantifier? Assuming that the semantic effect of adding it (i.e., severing a small portion out of a mass) is the same in both variants, what could it tell us about the syntax?

These maps and their brief discussion were meant to give a first impression on how important it is to use different tasks for elicitation in order to get a realistic picture. It will turn out below that there are some unexpected occurrences of the IA in CH, given the results above - however, they occur in slightly different contexts. I take these data to show how important it is to analyse very carefully the relevant morpho-syntactic and semanto-pragmatic variables, see Section 4. But before that, the phenomenon of IA+mass will be discussed in more general terms.

3.2 The IA+Mass as Replacement of Genitive Marking?

Standard German (and as can be seen from the maps above also Swiss German) prefers zero-marking of the mass noun, i.e., the mass nouns occur neither with genitive marking, which used to be the case in Middle High German (2b) (see Strobel, Glaser 2021) for a detailed description, nor with a preposition (with sometimes an amalgamated article, i.e., the partitive article), as it is familiar from the Romance languages, (2c):

and has fewer informants than FB4 [map 3] and nevertheless a higher acceptance. As the general tendency is that the number of informants decreased - as it is the case between FB4 and FB5 - it seems highly implausible in this case that - even if there was a certain exchange - suddenly much more 'Bavarian-like' speakers were involved. Later, we will see that this result does not come as a surprise when considering more data.

- | | | |
|-----|--|-----------------|
| (2) | <p>a. <i>Hast du Geld dabei?</i>
have you money there.with
'Do you have money with you?'</p> | Standard German |
| | <p>b. ...<i>ich noch ein-er salbe-n hân...</i> MHG
... I still a-GEN ointment-GEN have
'... I still have some ointment' (cited after Paul 1919, 348)</p> | |
| | <p>c. <i>Tu as del' argent?</i>
'Do you have money with you?'</p> | French |

The same pattern can be found when a mass noun combines with a weak quantifier where again Bavarian and some parts of Alemannic insert an IA before the mass noun, see [map 3]:

- | | | |
|-----|--|-----------------|
| (3) | <p>a. <i>ein wenig Ø Öl</i>
a bit oil</p> | Standard German |
| | <p>b. (<i>ich han</i>) <i>ein wening öl-s</i> MHG
(I have) a bit oil-GEN
'I have a bit of oil' (from DWB:BD 29,1)¹⁷</p> | |
| | <p>c. <i>un peu d'huile</i>
a bit of oil
'a bit of oil'</p> | French |

Finally, a similar pattern arises with so-called container nouns resp. measure phrases:

- | | | |
|-----|--|-----------------|
| (4) | <p>a. <i>ein Glas/Liter Milch</i>
a glass/liter milk</p> | Standard German |
| | <p>b. <i>ein phunt fleisch-es/ein fuoder guoten wine-s</i> MHG
a pound meat-GEN/a loadtrack good wine-GEN
(cited after Paul 1919, 294)</p> | |
| | <p>c. <i>un kilo de pommes</i>
a kilo of apples</p> | French |

¹⁷ DWB = Deutsches Wörterbuch Jacob und Wilhelm Grimm. <http://dwb.uni-trier.de/de/>

In the cases illustrated in (2) and (3), we have seen above that Bavarian and parts of Alemannic use the IA instead of the genitive marking whereas Standard German has no marking at all. As such, these dialects pattern more with French in the sense that there is a lexicalised syntactic position for partitivity. However, in the cases in (4) with container nouns/measure phrases, the Southern German dialects seem to pattern again with Standard German, i.e., with zero-marking instead of an IA before the mass noun.¹⁸ Thus, a pure replacement analysis of genitive marking with the IA will obviously not capture the whole range of data, since the genitive was used regularly with container nouns/measure phrases in older stages of German. Nevertheless, putting container/measure nouns aside for the moment, we can roughly distinguish between two varieties of Modern German: one that has replaced the former genitive by zero-marking and one that uses the IA in its stead. And this raises the following question: how come that a lexical item, standardly assumed to have derived from a numeral, is able to stand for partitivity, where usually only a vague quantity is at issue? While some have claimed that the insertion of the IA in Bavarian is more or less a formal requirement, meaning that there are no article-less nouns in this dialect, e.g., Eroms (1989), others, e.g., Glaser (1993; 1996; 2008) and subsequent work, Donhauser (1995) and Kolmer (1999), discuss the semantic contribution of the IA. The characterisation of its contribution ranges from ‘individuation’ via ‘countability’ to mere ‘partitive/partition’. I will follow the latter approaches and assume that the IA indeed makes a semantic contribution in these contexts. The question is whether one can find a common semantic core which allows this lexical item to lexicalise such differing concepts and thereby capturing of course also its more common use, i.e., as the existential quantifier with count nouns. I will argue in Section 5, based on the distribution of the IA in Alemannic, that this common semantic core is a rather abstract notion of ‘contrast’, meaning that if there is an IA, it presupposes that there exists something of a similar kind from which the denoted entity is divided, either as a subset or as a subkind. This is much in the spirit of the non-uniqueness analysis suggested for the IA in Le Bruyn (2010) and also Zamparelli (2008). However, I will suggest a syntactic structure that is able to capture the fine-grained distinctions between the different environments where the IA occurs.

18 See Grestenberger 2015 for a detailed discussion of the syntax and semantics of container noun constructions in Austrian Bavarian. In her data, no example with an IA occurs; the same is true in Kolmer 1999. Unfortunately, there are no data with container nouns/measure phrases from SynAlm because the focus was more on generic/non-generic readings. However, as a native speaker of Alemannic, I can confirm that the IA is not possible in the context of container nouns/measure phrases. I also did not come across any examples of such a construction in dialect grammars, consulted until now.

The next steps are therefore to investigate the distribution and semantic contribution of the IA in further environments. Specifically, are there other unusual or uncommon (in contrast to Standard German) occurrences of the IA, e.g., does it also occur with predicatively used nouns in these dialects and also importantly: Where is it not allowed? Although there was no special topic ‘partitivity’ in the questionnaires built in SynAlm, the distribution of the indefinite and definite article – contrasted with zero-marking – was an important issue. One aim was to examine more closely the phenomenon known as ‘determiner doubling’, as this is an often discussed phenomenon for southern German dialects, see Section 3.3. The other issue was to find out which morpho-syntactic means are used to mark generic readings of nominal expressions. As mentioned in Section 2.1, the idea in SynAlm was also to gain explicit negative evidence, thus versions which were highly unlikely to exist, were nevertheless offered to the informants. As will be shown below, this strategy leads to some interesting and also puzzling effects.

3.3 Doubling of the Indefinite Article

A very close construction to the one illustrated above, attested both in Bavarian and Alemannic, is the one in (5a), which is often discussed in the literature under the term ‘(indefinite) determiner doubling’, see e.g., Kallulli and Rothmayr (2008) and Richner-Steiner (2011) for Swiss German, and Strobel and Weiß (2017) for a more recent account of Bavarian. Compare (5a), where we find an IA with a count as well as with a mass noun, with (5b) which is the construction already presented [map 3]:

- (5) a. *a so a netter bua / a so a guater wein* Bavarian/(Alemannic)
a so a nice boy / a such a good wine
‘such a nice boy’ / ‘such a good wine’
- b. *a weng a wasser* Bavarian/(Alemannic)
a bit a water
‘a bit of water’

Due to the surface similarity between them, these two constructions are often treated in a parallel fashion, e.g., in Kallulli and Rothmayr (2008). However, Strobel and Weiß (2017) have argued in great detail that (5a) must be strictly set apart from the pure quantification/partitive structure in (5b), since it has different morpho-syntactic properties e.g., in terms of obligatoriness and of inflection of the articles, which I will not present here for reasons of space, but see fn. 14 for

some remarks. Note in addition that the combination with *so* seems to be the only case where an IA occurs obligatorily with a mass noun even in Standard German, typically in exclamatives:

- | | | | | | |
|-----|----|-----------|-----------------|---------------|-----------------|
| (6) | a. | <i>So</i> | *(<i>ein</i>) | <i>Wein!</i> | Standard German |
| | | such | a | wine | |
| | b. | <i>So</i> | *(<i>ein</i>) | <i>Glück!</i> | |
| | | such | a | luck | |

With such an exclamation, one refers to a situationally given entity (wine, luck) together with a linguistically not expressed evaluative attitude. In Brandner (2010), where certain types of exclamatives are discussed, it is argued that the IA in these cases implicates the presence of something with which it can be contrasted, and that this is the basis for its prototypical usage in exclamatives.¹⁹ The interpretation is thus not that of a portion/amount, i.e., partitive, as it is the case in (5b), but rather that of different sorts/types/degrees. If the adjective is present, the contrasting effect is based on the lexical contribution of the adjective itself – if there is ‘good wine’, it implies that there is also, e.g., ‘bad wine’. Even in its bare form, cf. (6), the construction with *so* still implies that there are different kinds of wine – and the one at hand is remarkable or special, depending on the situation. In the case of ‘luck’, we can think about ‘degrees of luck’ or again ‘bad luck’, ‘good luck’ etc. This contrasting effect can be captured with the notion of the so-called ‘subkind reading’, see Carlson (1977) and also Cohen (2001). Subkinds stand in a taxonomic relation to their ‘superior’ kind. E.g., ‘wine’ denotes a kind, the established subkinds are, e.g., ‘red wine’, ‘white wine’, ‘table wine’. But a further possibility is something like ‘an extraordinary wine (in my view)’ – ‘in contrast to others’, as in (6a). Thus, we do not need necessarily the notion of degree in the sense of a scale. Subkind merely means that there is at least one property that distinguishes one type of wine from another one. The proposal here is now that either the addition of an adjective and/or the construal with *so*, creates *ad hoc* subkinds. The important point is that subkinds in contrast to ‘proper kinds’ are conceived of as individuals – and this has consequences for the (im)possibility of the indefinite determiner, specifically, subkinds always come with

¹⁹ Usually, this is captured with the notion of degrees, cf. for example Rett 2011. This of course is also due to the fact that *so* is the typical degree particle. But note that Anderson and Morzycki (2015) have argued that degrees can be conceived of as a special kind of kinds, namely kinds of states. What is important in the context here is that degrees by their very nature always include a notion of ‘contrastiveness’, be it on a scale or on a more abstract level – a given value can only be defined in contrast to other neighbouring values.

an indefinite determiner – even in Standard German, cf. (6). I will come back to this issue in more detail in Section 4.1. What is important for now is that despite the surface similarity of (5a) and (5b), we are dealing here with two different interpretations of the IA+mass.

Concerning the doubling in (5a), I follow the argumentation in Richner-Steiner (2011, 129 ff.) that what looks like an indefinite article as the *a* in (5a) is indeed part of the particle *so* which shows up as *əso* in these dialects, see also Strobel and Weiß (2017). This form is the result of a phonetic reduction of the (originally) emphatic version *al-so*. What looks like doubling is thus more a re- or better mis-analysis of this complex form as including the indefinite article. This is possible because the IA in Alemannic consists of a schwa in the feminine/neuter nominative and accusative case.²⁰ The masculine form is *an*, nevertheless, the element before *so* shows up again as a schwa – at least in BW-Alemannic.²¹ In CH-Alemannic, where doubling is attested as well, the paradigm of the IA is (in some parts) more complex than the one described above. In these dialects, the neuter form is *əs*.²² There are no explicit negative data, since we did not offer a sentence of the [... *es so es adj* + neuter noun] in a judgment task. But some speakers of this variant gave us their version of such a construction in a related task and the forms given were of the type [*e so es adj* + neuter noun] throughout. Thus, there is also no inflection of the higher ‘article’.

20 Although schwa is represented with the grapheme <a> in the text.

21 This is also true for feminine nouns in the dative where we find a more distinguished morpheme:

(i) *vun a so ara sach*
from a such a-FEM.DAT thing

This example was tested (5-point scale with 1-2 ratings as acceptance) with basically all possible combinations of (non-)inflection up to no higher IA at all, i.e., merely *so*. In fact, the latter version got the best rates (75%), the one given in (i) was the second best (26%). The version with both of them inflected got 8%. The version with only the higher one inflected and the lower IA uninflected (*vun ara so a sach*) however got surprisingly a rather good rating (17%). This last version was found in an old dialect grammar (Staedele 1927) on which we built the test sentences. I cannot offer a real explanation for this pattern. However, note that the particle/IA(?) is immediately adjacent to a case assigner, i.e., the preposition *von*, and given the adjacency requirement of case assigner and case assignee (assuming that the *so*-particle is in a degree phrase within the NP, see, e.g., already Corver 1990), it could be this surface adjacency that makes this ordering sound correct. And recall that the form of the IA in non-dative environments is simply schwa, which means that the particle and the IA are phonetically identical, the particle-schwa is then taken as the base for adding the inflectional suffix for the dative exponent. If such a reasoning is on the right track, it would argue in favor of an affix-migration-like analysis, see, e.g., Diertani 2011, i.e., a process operating on the surface string. This process would then be operative in Bavarian to a much higher extent – in addition with copying. I will leave this open for future research.

22 Thanks to a reviewer for pointing out the possible relevance of this difference in the paradigms.

For Bavarian on the other hand, inflecting forms of the higher IA are attested, see, e.g., Strobel and Weiß (2017). However, as indicated in their examples throughout, the inflection on the higher IA seems to be optional, i.e., a bare one is always a possibility. This indicates that the inflected doubling forms seem to be rather an effect of ‘parallelism in morphology’ on the surface. A final argument for this rather surfacish analysis of this ‘doubling’ is again areal distribution. As presented in Brandner (2021), the regions where doubling is attested coincide nearly exactly with those that use the *əso*-form also in a syntactic environment where it is a simple degree particle *so hoch* (= ‘so high’).

The ‘doubling’ in (5b) is arguably due to the fact that the higher IA is indeed part of the quantifier, namely as a frozen uninflected indefinite article, like in English ‘a lot of’, see Strobel and Weiß (2017). The lower article in this case is thus indeed the IA+mass as in (1). This leads one to expect that ‘doubling’ of this kind is only possible in those varieties that use the IA just the way it is used in (1). As shown earlier [Map 3], this is by and large indeed true, if one considers the areal distribution – although a deviance could be detected in terms of acceptance. I will offer a possible solution for this fact in Section 5, after having introduced the syntactic structure that I will assume. But before that, further data will be presented in order to get a broader picture of the usages of the IA in Alemannic.

4 More Data

In (7), all the sentences are listed that we gave for translation in FB3. We chose examples where a deviation from Standard German could be expected when it comes to the use of the IA. Thus, we included bare nouns in predicational function and mass nouns in varying contexts (episodic, generic, accompanied by a weak quantifier). Some more data from different tasks and constructions will be integrated as the discussion of these examples proceeds.

The examples are given in (7), FB3_3:

- (7) a. *Ich brauch noch Kaffee für morgen früh* bare mass noun
I need still coffee for tomorrow early
‘I still need some coffee for tomorrow morning.’
- b. *Mein Sohn ist Mechaniker* predicational NP
my son is mechanic
‘My son is a mechanic.’

c.	<i>Wasser kocht bei 100 Grad.</i> water boils at 100 degrees 'Water boils at 100 degrees.'	generic (subject)
d.	<i>Hättest du mir ein wenig Zucker?</i> have you for.me a bit sugar 'Would you have some sugar for me?'	with weak quantifier
e.	<i>Habt ihr noch Mehl im Haus?</i> have you.PL still flour in.the house 'Do you have some flour at home?'	bare mass noun

The numerical results for the sentences in (7) are summarised in Table 1 for the translation tasks (FB3) and the acceptance tasks (FB5):

Table 1 Production and acceptance rates of the construction in (7)

construction type	translation with IA (production rate) n = 757	acceptance of IA (1 & 2 ratings) n = 517
(7a) bare mass noun (<i>need</i>)	BW: 23% CH: 5%	---
(7b) predicational noun	BW: 5% CH: <1%	BW: 17% CH: 10%
(7c) generic (subject)	BW: <1% CH: <1%	BW: 20% CH: <1%
(7d) with weak quantifier	BW: 8% CH: <1%	BW: 44% CH: 4%
(7e) bare mass noun (<i>have</i>)	BW: 11% CH: <1%	BW: 68% CH: 6%

As can be seen – and as already could have been read off from the results for (7d,e) presented in Section 3.3 – the production and the acceptance rates differ quite drastically. The overall picture nevertheless strengthens the observations, already found in Glaser (2008), that the IA in CH-Alemannic and in BW-Alemannic obviously differ in their grammatical status, such that the IA in CH essentially does not show up in the respective constructions. However, there are also some ‘outliers’: first the comparatively high production rate in CH for (7a) and second the high acceptance of the IA+mass in the generic statement (7c) in BW, again in a sharp contrast to the production rates. Another astonishing result is the difference in acceptance between (7d) and (7e), which we also already saw above when considering the maps. In the following, I will discuss each of these data points and will in some cases also offer some possible explanations that may lead to further investigations.

4.1 The Relevance of the Verbal Predicate: Kinds and Subkinds Again

Turning first to (7a), with the difference in production compared to (7e), unfortunately it is one of those sentences that was not presented for a judgment task in further questionnaires. The reason we did not include this sentence was the assumption that we are dealing in both cases with mass nouns in the partitive reading and thus we expected no relevant difference to the sentence in (7e). A possible account for this difference can be sought in the type of the predicate. Note that ‘need’ is an intensional verb and following Moltmann (2013), based on Carlson (1977), if the argument of an intensional verb is a mass noun, then the kind reading is prevalent. That would mean that the IA in (7a) does not necessarily lexicalise a partitive reading, but that a kind reading is possible as well. In order to strengthen such a conjecture, it must be shown whether there is a certain percentage of Alemannic speakers that use the IA+mass in kind-denoting environments. And this seems to be indeed the case. In a further 5-point judgment task, we contrasted mass nouns and count nouns in so called “characterizing statements”, see, e.g., Cohen (2001) and Krifka (2003), where – informally speaking – the IA serves to pick out one specimen, standing for the whole kind, and the property assigned to it is then generalised. As such it is very close to the proper kind-reading, which is expressed in German usually with a bare plural or the definite determiner (data from FB5-3b, resp. 3c):²³

- (8) a. *Man weiss doch, dass ...* (‘It is common knowledge that...’)
eine/die/0 Kartoffel(n) viel Stärke enthält/enthalten.
a/the/0 potato(es) much starch contain(s)
‘a potato/potatoes contain(s) a lot of starch’
- b. *ein/der/0 Wein aus Trauben gemacht wird.*
a/the/0 wine from grapes made is
‘a wine/the wine is made out of grapes’

The version in (8a) with the count noun (‘potato’) and an IA is the standard case for these characterizing statements, and thus, as expected, receives a rather high rating (1–2 ratings in BW 48% and in

²³ There is not a complete overlap. For example, *A dodo is extinct* is not possible. Krifka (2003, 180) cites the English example *the gentleman opens the door for ladies* as ungrammatical. In German, I think this sentence is acceptable. However, this shows merely how flexible the interpretation of definite and indefinite articles is – across languages and dialects.

CH even 55%).²⁴ But interestingly, for the example in (8b), which is a characterizing statement with a mass noun ('wine'), the 1–2 ratings reached 18% in CH and 23% in BW, i.e., much higher in CH but lower in BW than with an IA+mass in a partition reading, cf. (7a,e). Note that in such a characterizing context, a partitive reading is highly implausible, given that all types of wine are made out of grapes. Thus, the acceptance of the IA in this environment (for those speakers at least) must find another explanation. We can approach this problem if we consider subkinds again, discussed already briefly in Section 3, cf. the examples in (5) and (6). Recall that subkinds are defined in contrast to another subkind, i.e., the two entities must share a certain amount of properties – but crucially differ in at least one. Additionally, there must be a taxonomically higher kind, by which these two are dominated. Now contrast 'wine' with, e.g., 'beer' with respect to what they are made of. The constructed follow-up to (8b) in (9) is perfectly acceptable if there is a heavy stress on the nouns:

- (9) It is common knowledge that...
[WINE is made out of grapes] but BEER is made out of grains.

One can indeed construe two subkinds, such that both belong to the taxonomically higher kind 'alcoholic beverages'.²⁵ 'Pure' kinds on the other hand do not contrast distinguishable subkinds/sorts but can stand for themselves. Under this perspective, there is a genuine variability as to whether a mass noun is conceived as a 'pure' kind or as a subkind. The suggestion is thus that those speakers who accept the IA+mass in these environments construe the mass noun not as a kind – but as a subkind. And as was discussed above in Section 3.3, the IA – either with mass or with count nouns, cf. (8), can lexicalise this semantic concept. Thus, the astonishing high amount of the IA+mass in (8b) even in CH but the lower acceptance in BW – if contrasted with the partition reading, cf. (7e) – could be accounted for if we assume that a certain amount of speakers from both variants have built ad hoc subkinds and the occurrence of the IA in these examples must be set apart from the partition reading. But then, coming

²⁴ That the ratings are not higher has probably to do with the fact that this version was presented directly contrasted with one with the definite article, resp. a bare plural, which both seem to be preferred. Note that only 6% rejected the version with the IA completely (5 on the scale).

²⁵ Note that even 'alcoholic beverages' could be turned into a subkind of 'beverages' in general with one being with alcohol and the other not, i.e., we have again a distinguishing/contrasting property. A reviewer asks whether the sentence itself could also be interpreted such that there are other types of wine, e.g., made from fruit. This is indeed true, cf. *Apfelwein* ('apple wine'), where the subkind reading is realised via the compounding, cf. also 'red wine', 'white wine'. Thus, the formation of subkinds is not restricted to the syntax but takes also place directly in the lexicon.

back to the discussion around (7a), i.e., the mass noun ‘coffee’ under the intensional verb, we are faced with another problem. Recall that I suggested that we are dealing here with a kind reading. But if the IA is indeed the lexicalisation of subkinds, we must assume that the speakers here have different kinds of coffee in mind – which seems rather implausible in this context. However, note that we added ‘for tomorrow morning’ as context. This means that the coffee is probably needed for breakfast. Now ‘breakfast’ can be taken in one reading as an object mass noun like, e.g., ‘furniture’, ‘clothing’, ‘equipment’ etc., i.e., consisting of different items but belonging to one concept. Typically, these nouns behave syntactically like mass nouns, which would be in line with the analysis given in Moltmann (2013) that we get a kind reading here. The items belonging to ‘breakfast’ would be among others ‘bread’, ‘honey’, ‘butter’, and of course ‘coffee’. A plausible scenario thus would be that ‘coffee’ is interpreted in the context given in (7a) not directly as a kind, but as one constitutive part of this object mass noun. As such, it again would fall under the notion of subkind, since there is a taxonomically higher notion (‘breakfast’) and there are contrasting entities at the same level.²⁶ The IA would thus then be again the lexicalisation of a subkind reading. Those speakers who did not use the IA would then have had the pure kind interpretation in mind, which is expected under an intensional verb, see above. Based on these admittedly speculative considerations, it would be interesting to design a questionnaire where these factors are controlled for more systematically, i.e., contexts where the subkind reading is forced by contrasting the two nominals, as in (9) – and on the other hand contexts where such a reading is highly implausible. In sum, the unexpected ratings for (7a), especially in contrast to (7e), give rise to further considerations concerning the notion of subkinds that open new fields for investigation.

4.2 Mass Nouns in Generic Statements

Let us investigate now the results from (7c), the sentence with a mass noun in a generic statement. The puzzling fact is that the IA was produced in the translation below 1% in both areas – however, the acceptance rate in BW is exceptionally high (20%). First of all, note that this is a sentence which hardly invites to construe a subkind reading – as in a non-technical understanding, all fluids that can boil are essentially

²⁶ See, e.g., Sutton, Filip 2018 for a detailed semantic discussion of the building of subkinds with object mass nouns. The relevant difference is that these subkinds overlap extensionally (e.g., coffee is not only part of breakfast, but can also be drunk after lunch) – in contrast to the more familiar subkinds of the ‘red wine/white wine’ type of mass nouns.

water. As such, the CH-rating is what is expected. As it seems highly implausible that only the BW-speakers construe the subkind reading in this case,²⁷ and if we compare it with the results for (8b), the characterizing statement ('wine is made out of grapes'), the reason for this high acceptance must be found in another factor. As mentioned above, we offered many more examples in generic contexts with the respective noun with either definite/indefinite/zero article – which I will not all present here. Many of these were built on the examples discussed in the literature on generics. For example, with a verbal predicate like 'extinct', the rates for IAs (whether with mass nouns or count nouns) are below 1% – as expected. In a choice task with a sentence where the mass noun is the object comparable in its content to the one in (7c), the acceptance in BW is only 3.6%.²⁸ Thus, one could hypothesise at first sight that the difference can be traced back to a subject/object distinction. But in another example with the mass noun again in subject position (*Geld allein macht nicht glücklich* 'Money alone doesn't make (one) happy'), only 2% opted for the IA. In general then, the IA+mass in generic contexts receives very low acceptance and it never reached the acceptance rates found with the sentence in (7e). Thus, I conclude that in explicit generic statements with a kind reading of the mass noun, the IA shows up only marginally. The reason for the relatively high acceptance for (7c) in BW thus must be left open here. However, note that the generic statement in (7c) is built with a verb that is in its basic meaning an activity verb ('cook') and the generic reading comes via the construction and not via the lexical meaning of the verb, cf. a verb like 'extinct'. That this difference may have an impact will be discussed in the next section where exactly this factor was controlled for and where the results are equally not as clear-cut as expected on the basis of (7e). This shows that the lexical content of the predicate as well as the context must not be underestimated, cf. also the discussion around the intensional verb 'need' with its deviating results. Thus, for future research in this area, it is indispensable to offer examples containing much more variation, specifically concerning the verbal predicate. However, it is not enough to simply vary the lexical predicate, since one lexical predicate can get different interpretations depending on the further syntactic surrounding, specifically the actual aspectual/temporal specification. This is the topic of the next section.

27 Which is of course a possibility, recall that, e.g., oil boils at a different degree. However, that this does not happen in CH – in contrast to the 'breakfast' example, makes this highly implausible.

28 The sentence given was the one in (i) and is translated into English best as 'Gold belongs to the precious metals':

(i) *Zu den Edelmetallen zählt man das/ein/0 Gold*
to the precious metals counts one the/a/0 gold

4.3 Varying the Verbal Predicate

As mentioned in Section 2, the SynAlm-project aimed at an exhaustive overview of the forms/constructions to express generic readings. We thus constructed examples where we varied systematically the predicate-type (stage-level vs. individual-level) with the morpho-syntactic make-up of the respective DP together with the aspectual specification. This led to a large amount of examples with the IA in various semanto-pragmatic environments, which can now be exploited to get a better picture of how the IA behaves in partitives as well. We cross-classified the predicates with the readings of the predicate such that with each reading of the predicate, the DP was offered with an IA, a definite article, or a null version, cf. the Standard German examples in (3) and (4). As we were interested mainly in generic readings, not only mass nouns were tested but also (plurals of) count nouns and abstract nouns ('hope', 'fear' etc.). In addition, we varied also the grammatical function of the respective DP, i.e., whether it acts as the subject or object. A further aspect which is important to consider is that typical activity verbs like 'eat' and 'drink' can get an individual-level/non-episodic reading by adding an adverb like 'usually' for a habitual aspect.

We constructed thus the following examples, for ease of exposition, simply given here in English:

- (10) Situation: in a beer garden ...
- a. Usually, I drink beer or wine (stage-level; habitual)
 - b. But today, I will drink water (stage-level; episodic)
 - c. Otherwise, I like beer or wine better (individual-level; generic)

We offered these three sentences with definite/indefinite/zero determiner and the speakers were asked to rate them on a 5-point scale. The outcome is as follows: (% of 1 & 2 ratings):

Table 2 Varying interpretations of the verbal predicate 'drink'

	definite article	indefinite article	zero
stage-level; habitual	BW: 3 CH: 4	BW: 72 CH: 38	BW: 78 CH: 93
stage-level; episodic	BW: 5 CH: 4	BW: 89 CH: 42	BW: 80 CH: 92
individual-level; generic	BW: 42 CH: 33	BW: 66 CH: 24	BW: 79 CH: 84

Compared to the cases discussed until now, the picture in this case is a bit more complicated. On the one hand, zero-marking is nearly in all cases the preferred version, beside the 89% in BW for the episodic reading. Having a closer look at the results for the IA, it is

again obvious that in BW, the usage of the IA is in general higher but the numbers for CH are astonishing, given what we have seen so far. This might be due to the context given, since in a restaurant-setting, the portion-reading, i.e., the ordering of a drink means always portion ('glass of...'), is the most natural one and this is a usage where we find the indefinite article even in Standard German. Note furthermore that it is also a counting environment, i.e., if two people order the same drink, it is no problem to order *zwei Bier* (literal translation: 'two beer'), i.e., use a numeral with a mass noun. Thus, the contextual setting was in the end rather unfortunate – although it gave a good opportunity to contrast the habitual reading of an activity verb with an inherent individual level predicate. But nevertheless, note again the contrast between CH and BW for the indefinite article. Thus, even with this bias, a clear distinction between CH and BW can be detected when it comes to the acceptance of the IA+mass construction.

In order to vary the tasks, we took the noun 'fish', which can be interpreted either as an ordinary count noun, but in a food context, it can get a mass reading (cf. 'there is fish in the soup'). So, we asked our speakers for the sentence in (11) which interpretation they prefer if the IA is present:

- (11) I would like to have a fish for lunch

The interpretations (a-c) for both versions are given below, together with the results for the version with the IA:²⁹

- | | | |
|--------------------------------------|---------|---------|
| a) It must be a whole/complete fish | BW: 35% | BW: 35% |
| b) it contains fish, e.g., fish soup | BW: 7% | CH: 3% |
| c) both interpretations are possible | BW: 54% | CH: 22% |

As expected, CH speakers prefer the individual reading in case an IA shows up whereas this interpretation is mandatory only for 35% in BW, cf. the interpretation in a). Concerning b), note that the 7% in BW corresponds approximately to the 8% that produced the IA+mass in the translation task, cf. (1). Interestingly, there seems to be a certain variability for c) in CH, but the value for this option in BW is much higher. The problem of this task, resp. the way we executed it, is the possibility in c). Given this optionality, we could not control

²⁹ As expected, for the version without the IA, i.e., the bare nominal, about 80% voted for both interpretations, i.e., in this food context the nominal itself is seemingly underspecified.

which interpretation is indeed preferred, as the other two interpretations were presented as the ‘only possible’ one. Thus, a better design of such interpretational questions is necessary. Still, there is again a sharp difference between BW and CH for a), indicating that the IA has a different usage in the two variants. In sum, the general picture from the maps in Section 3 is confirmed, namely that in CH, the IA+mass is used much more reluctantly. How this difference between the two variants can be captured, is the topic of the next section.

5 Theoretical Discussion

Table 3 gives a rough overview of the constructions discussed. Instead of giving the percentages, I use a three-way distinction with + = high acceptance; - = virtually no acceptance; ~ = substantially above rejection.

Table 3 Summary of the findings

Construction	BW	CH
IA+mass (have some flour)	+	-
IA+mass (intensional)	+	~
IA+mass weak quant (doubling)	+	-/~
predicational noun	~	~
generic statement (water boils)	-/~	-
habitual (activity verb), restaurant setting	+	~
episodic (activity verb), restaurant setting	+	~
generic (ind.-level predicate), restaurant setting	+	~
stuff reading (fish)	+	-/~

Ignoring the restaurant setting case, due to its inherent bias with the portion, resp. ordering reading, it is obvious that there is a sharp difference between CH and BW. The cases where we find a certain amount of IA+mass in CH are all cases where further factors come into play: the intensional verb with the object mass noun (‘coffee/breakfast’ example), where I suggested that a subkind reading is a possibility, which then even would require an IA also in CH. But as discussed there, the suggestion that the IA in these cases is the exponent of a subkind reading should not be taken as a proposed analysis but rather as a hint to which possible interpretations might arise and that they should be controlled for in future work. What I did not address until now is the predicational construction, which is interesting in itself and surely deserves more investigation but can be set

apart in the context of partitivity.³⁰ Another reason to put it aside are the results for these examples: the IA is virtually not present in the translation tasks but the acceptance rates (17% in BW and 10% in CH) cannot be neglected. Interestingly, the difference between BW and CH is less pronounced than in the other tasks. Additionally, although I will not display the maps for reasons of space, the distribution of this acceptance is highly scattered across the whole area, such that it must be assumed that there is a high amount of individual variation. But since the focus here is on partitivity with mass nouns, I will put it aside and leave it for future work. Another area where IA+mass is accepted in CH to a certain amount is the doubling construction. Richner-Steiner (2011) discusses in great detail doubling of the indefinite article in Swiss German, although in the context of intensifiers, i.e., particles like ‘very’ together with an adjective.³¹ She shows that especially younger speakers accept doubling to a remarkable extent. Furthermore, there does not seem to be a relevant areal distribution of doubling. Interestingly, it occurs in CH even with the particle *sehr* (= ‘very’), which is reported to be strictly excluded in Bavarian, cf. Kallulli and Rothmayr (2008). Finally, there is a high amount of variation between speakers. Thus, it seems that doubling in CH is not a deep-rooted dialectal feature. According to our data, doubling in CH-Alemannic was better accepted – or at least less rejected than the comparable partitive construction without a quantifier [map 3]. Thus, a possible explanation would be that this lesser rejection is due to the fact that doubling of the indefinite article (although in a slightly different context, i.e., intensifiers) seems to be a rather frequent pattern in modern CH-Alemannic. Given what was said about doubling as a rather ‘surfacish’ phenomenon, see Section 3.3, it might very well be the case that the effect arises through a ‘pattern transfer’, due to the surface resemblance between the two. Taking these considerations together, it is in my view justified to assume a micro-parametric difference between the two variants with respect to the IA+mass construction in its partitive reading.

The next step is then to model this difference within a suitable framework. I will do this in an exo-skeletal framework as first worked out in detail in Borer (2005) and much subsequent work. Specifically, I assume that lexical items enter the syntax as a-categorial roots, see, e.g., Embick and Noyer (2007). In case of a nominal, this root merges with the categoriser ‘little n’. Furthermore, I assume that these roots do not

30 But see Le Bruyn 2010 (Part III), who argues that IA+predicational noun can also be captured with the notion of non-uniqueness, resp. the REL operator (or R-operator, as in Carlson 1977), see also Schulpen 2016 for a detailed discussion.

31 There is also a brief discussion of the construction with the weak quantifier – however, doubling in this context is not discussed.

come with more lexical specification than the mere discrimination between non-linguistic concepts (encyclopedia). This means that there is no mass/count distinction at this step of the derivation. I will come back to this issue below. Above little *n*, functional heads are added that give instructions for the actual interpretation, e.g., in English and German, if the plural suffix is added to the mass noun ‘wine’, the sort/type reading is forced. On the other hand, if a ‘count noun’ like ‘fish’ comes without further functional material, it gets a stuff reading (grinding effect). In recent years, more fine-grained structures than Borer’s Div(ision) phrase have been suggested for this low area of the DP, based on empirical work on other languages and on theoretical considerations. I cannot do justice to this work here, but see for example the contributions in Mathieu, Dali and Zareikar (2018). I will broadly follow the nano-syntactic approach in which for every semantic feature, an extra head is projected in the syntax, see Baunaz et al. (2018), and importantly, neighbouring heads can be spelled out with the same lexical item (syncretism), whereby the notion ‘lexical item’ also involves affixes. In the case at hand, the relevant lexical item is the indefinite article and the different interpretations that it may contribute, as we have seen above. Another issue is to capture the variation between CH and BW that was detected in the previous sections. I will argue that the functional sequence, relevant for the issues here, looks as follows, given here as a table and ignoring for the moment the proper kind-reading in generic statements as well as the characterizing statements.

Table 4 The functional sequence and its lexicalisations in the various dialects

functional head	number	individual	partition	little n	√lexeme	
meaning	counting	existential	subkind	subset vague amount	categoriser	encyclopedic
contribution						
example	one N	... a potato ...	such a N cf. (5), (8b), (7a)?	... a flour ... cf. (7e)	no marking! mass per default	encyclopedic
lexicalisation in Bavarian and BW	<i>oa(n)-/oi(n)-</i>	<i>a(n)-</i>		<i>a(n)-</i>	zero	encyclopedic
lexicalisation in CH	<i>ei(n,s)-</i>	<i>a(n,s)-</i>		zero	zero	encyclopedic

The values in the row ‘functional head’ should be taken as X^0 categories, projecting to XP with a specifier if needed, see below. The hierarchical order of these projections starts with ‘number’ as the highest and ‘√lexeme’ as the lowest one. In the following, I will justify this sequence in some more detail. After that, the lexicalisation patterns will be discussed.³²

³² The numerals show a great variety of forms in the dialects under discussion. I have chosen only few as representatives. The relevant point is that they differ substantially

First, it seems undisputed that the IA can be an exponent of partition in the Germanic languages. There are various examples from MHG where we can detect it in environments like those in (7d) and (7e):

- (12) a. *dô was ein snê gevallen* GL 1196,4 MHG
 there was a snow fallen
 ‘There was fallen (some) snow.’ (cited after Paul, Wiehl, Grosse 1998, 24 387)
- b. *er âz daz brôt und tranc dâ zuo eines wazzers*
 he ate the bread and drank there with IA-GEN water-GEN
 ‘He ate the bread and drank with it (some) water.’ (Iw, V. 3310 – 3311)

(12b) shows that there was obviously a time when the IA and the genitive could even occur together and (12a) is a textbook example of a partitive, referring to a given subset and this subset is (i) a vague quantity and (ii) the partition is the result of an actual event. I thus take ‘partition’, the position directly above little *n*, as representing a spatio-temporally definable subset of the substance denoted by the mass noun, see also Acquaviva (2019) and the literature cited there. We can call it ‘situational partitivity’ and I will suggest informally that it is licensed only if the relevant DP is in the scope of an event variable which refers to an actual situation. It is this type of event variable that is lacking in generic and characterizing statements. Thus, the order and the meaning contribution of the functional heads within the nominal projection are the same in both cases, the relevant point is the temporal/aspectual marking in the VP/TP area. This draws a first rough line between having bare mass nouns in generic statements (in general without an IA) in contrast to the occurrence of the IA in episodic contexts.

Concerning partitivity in general, I will follow the idea, see originally Barker (1998), that partitivity necessarily involves true subtraction, specifically that there is a residue left, see Zamparelli (2008).³³ This means that the entity named by the nominal expression is set in contrast to the remaining or residual part of the entity. In the case of situational partitivity, the subset in the actual event is contrasted with what is left over in the actual world. With the notion of contrast, we can capture the distinction between subkinds and pure

from the indefinite article in having a diphthong. Given this clear distinction between numerals and the IA, I will neglect the numeral in the following and leave its integration into the picture, specifically with respect to grammaticalisation, for future research.

³³ He implements this idea syntactically by assuming a R(esidue)P, headed by the partitive preposition, e.g., in Romance.

kinds quite easily: proper kinds merely differentiate between different kinds on the lexical/encyclopedic level, subkinds on the other hand imply that there is at least one contrasting subkind, having at least one distinguishing property. Recall that both are dominated by a ‘higher kind’, cf. the example with ‘wine’ and its subkinds ‘red wine’, ‘white wine’ etc. Thus, it is not only ‘difference’ but in fact ‘contrast’, since they also must share some properties. Concerning the more common use of the indefinite article for introducing a new discourse referent (existential reading, usually with a typical count noun, cf. ‘a potato’ [tab. 4]), it comes with a “non-uniqueness” implicature, see Le Bruyn (2010, chapter 5 for extensive discussion). This simply means that it is implied that there exist further instances of ‘potatoes’ in the world. Taking this again as contrasting one single instance to all the others left in the world, the parallelism to the situational partitivity is obvious. The suggestion thus is that the indefinite article lexicalises the abstract notion of contrast – and depending on the surrounding context – this may have different instantiations:

- (13) The indefinite article lexicalises contrast, whereby contrast can apply to different concepts:

amount	→	situational partitivity (partition)
property/ies	→	subkinds
singling out one instance	→	existential reading

Note that I suggested one functional head ‘individual’ – but which can have two different interpretations, namely either as existential or as subkind – and recall that the actual interpretation is dependent on further factors in the aspectual/temporal domain. The reason for assuming the basic distinction between partition and individual is that subkinds and subsets (in the sense of situational partitivity) build a minimal pair when it comes to anaphoric reference. Consider (14):

- (14) Q: *Hond ihr no a Mehl im Huus?*
have you still a flour in.the house
‘Do you still have (some) flour in the house?’

A: **Na, ich han es au it / *Ja ich han es*
no, I have it as.well not / yes, I have it
intended: ‘No, I don’t have either.’/‘Yes, I have some.’

A’: *Na, ich ha au koas / Ja ich ha welles/0*
no, I have as.well neg.indef / yes, I have some
‘No, I don’t have either.’/‘Yes I have some.’

Although the mass noun is accompanied by the IA, it cannot be referred to anaphorically with a pronoun in the answer. Instead, the negative indefinite *kein-* has to be used or a partitive pronoun (*welles*) resp. a zero-form – which is the most common version in Alemannic, see Glaser (1993; 2008). If we compare this with either the ‘construed’ subkinds, discussed above, or with the regular ones accompanied by the particle *so*, a pronoun becomes possible:³⁴

- (15) a. *En kaffee sott it z'dünn si*
 a coffee should not too thin be
 – *suscht schmeckt er it*
 – otherwise tastes he not
 ‘Coffee shouldn’t be too thin – otherwise it doesn’t taste (well).’
- b. *So ein (guter) Wein! – Wo hast du den gekauft?*
 so a good wine – where have you it bought
 ‘Such a good wine – where did you buy it?’

The difference is that the respective subkinds are individuals in the sense that they are properly distinguishable as different entities, due to the necessary contrasting properties. Hence the possibility to refer to them via pronouns. In the partition reading, only a vague amount from the same substance is distinguished, which is then not conceived of as an individual with clear-cut boundaries.³⁵ The shared property of all three of them is nevertheless the rather abstract notion of ‘contrast’. In order to capture now the variation between CH/Standard German on the one hand and BW/Bavarian on the other, I will suggest that there is a small difference in the lexical entry of the IA. Whereas in BW/Bavarian, it lexicalises indeed only ‘contrast’, including thus partition, in CH/Standard German, ‘contrast’ is restricted to individuals:

- (16) a. IA in BW/Bavarian: [contrast]
 b. IA in CH/Standard German: [contrast, individual]

The question then is how CH/Standard German lexicalise situational partitivity. Surely, this concept exists in these languages as well, and therefore must have a lexicalisation. I will suggest here for the sake

³⁴ I assume that it is the particle *so* which induces the subkind reading, lexicalised then by the IA. For the sake of concreteness, I suggest that it is located in the specifier position of the individuation head and thus scopes over this part of the functional sequence. The exact syntactic analysis awaits further research, but see Hohaus, Zimmermann 2021 for a proposal in semantic terms with a preliminary syntax.

³⁵ Note that as soon as a measure phrase is involved, the expression is interpreted as an individual, as it can be counted, cf. ‘three liters of wine’.

of concreteness, following Adger (2013), that a lexical item can move higher up in the functional sequence and lexicalise the relevant semantic feature by itself. Thus, the root, after having combined with little *n*, and being now categorised as a noun, moves one position higher up and is interpreted now as a (situational) partitive. The cells with ‘zero’ [tab. 4] thus do not contain a ‘zero-exponent’ – but the lexical noun itself occupies this position. In BW/Bavarian, this movement does not take place, instead the IA is inserted and lexicalises the partition head directly – due on the one hand to its specification as only ‘contrast’ and on the other, due to its neighbourhood to the individuation head, i.e., this ‘spreading’ can be taken as an instance of syncretism. In CH/Standard German, the IA can be inserted only from the individual layer on upwards. Thus, the syntax, the functional sequence above little *n*, is in all the variants the same; the difference in the output, i.e., whether IA+mass is accepted or not, is simply due to the more liberal conception of ‘contrast’ in BW/Bavarian. Note that this model is well-suited to capture the different outputs concerning translation and acceptance tasks. The only assumption that must be made is that the speakers who accept IA+mass, but do not produce it actively, have both lexical entries in their lexicon and thus judge it as a further possible version – if they are allowed to – as in a judgment task. If a given speaker is more often confronted with it, as it is presumably the case close to the Bavarian border, this version then becomes prevalent such that it is also actively produced. Under this perspective, what is called in traditional dialectology ‘transition zones’, where speakers seem to have a ‘mixed grammar’, could then be modelled quite easily: The syntax, i.e., the presence and order of the functional heads, is constant but the lexicalisation may vary. As the neighbouring head (individuation) is realised in all dialects under discussion by the IA, a ‘shift’ one step further down is licit, according to the assumptions of lexicalisation within the nano-syntactic framework.

Concerning the lower acceptance of a pseudo-partitive with a weak quantifier in contrast to the ‘bare’ one in BW, I suggest that these weak quantifiers are situated in the specifier of the partition phrase and those speakers who do not use the IA+mass in this context obey something akin to the Doubly filled Comp filter (DFC) in that both positions cannot be lexicalised simultaneously. Concerning the lesser rejection in CH, see the remarks about doubling above. A DFC kind of explanation would then also hold for measure phrases/container nouns and other weak quantifiers that do not co-occur with an IA. Recall that in earlier stages, container nouns were followed by a noun in the genitive but that in this case, the genitive was not ‘replaced’ by the IA. We can either assume that again something like the DFC is at stake or – as is widely assumed in the grammaticalisation literature, cf. Van Gelderen (2004) – that the phrase that was originally situated in the specifier has been reanalysed as a head and lexicalises

the partition head now directly – leaving no more room for an IA. But since the head is lexicalised nevertheless, the output is grammatical. However, this does not explain the strict impossibility of the IA+mass with measure phrases/container nouns. But since I do not have independent confirmation of this fact, I will leave it for future work.

To make the picture complete, here are only a few remarks concerning ‘proper kinds’. I will follow the analysis proposed in Borik and Espinal (2015), who suggest that the kind reading is captured best if one assumes an impoverished functional structure above a traditional NP-projection. In their syntactic structure, there is only one functional head, namely number, which they assume to be lacking in kind readings. Instead, the NP, denoting a property, as is commonly assumed, is dominated directly by D, lexicalised by the definite article in the Romance languages – on which their proposal is built.³⁶ In the proposal here, the highest projection would then be little n. As indicated [tab. 4], if the derivation stops here, i.e., no more functional structure is added, the nominal gets a mass interpretation by default. And such a structure would then be relevant for mass nouns in generic statements, for which we saw above that they occur predominantly without an IA. But what about the generics with count nouns? In the Germanic languages, the usual way to lexicalise a kind reading is to use a bare plural, i.e., something like ‘cats catch mice’. Now plural is one instance of number and thus one would have to assume that the whole structure is projected until number is reached, since plural operates on individuals. ‘Cutting out’ the functional structure in between would not be an option since then there is no layer for the individual interpretation and thus, the plural operation would ‘run empty’. However, Geist and Błaszczak (forthcoming) and Geist (2023) argue, based on Mathieu (2012), that there is a functional head dubbed by them as “mass plural” and which is located below DIV in Borer’s framework (individuation here). This head is lexicalised by the usual plural morphology but it brings in a different semantics. The observation is, again especially in food contexts, that a plural like ‘carrots’ can combine in German with the uninflected form of the quantifier *viel* (‘much, many’) and then gets a substance/kind reading, i.e., something like there is ‘too much carrot in the soup’, i.e., something akin to the grinding effect. If the quantifier is inflected, the usual count/individual reading shows up again.³⁷ Thus,

36 I have nothing to say here about the definite article that occurs obligatorily in the Romance languages in this reading – a possibility that is also found in Germanic. But note that the definite article belongs to a region that is responsible for ‘linking’, if one follows Wiltschko’s (2014) approach of universal (functional) categories, i.e., it regulates how the nominal expression is integrated into the discourse. As such, it is not directly involved in the construal of the kind reading.

37 See Ruys 2017 for a similar effect in Dutch with the same type of quantifier.

with an expression like *viel-e Karrotten* ‘many carrots’, reference is made to whole individual carrots. Whatever the role of (non-)inflection is and whatever head in the functional above it realises, such observations show again that only a much finer grained functional structure above the nominal is able to capture the whole range of the possible different readings of lexical nouns. Coming back to the kind reading, the suggestion thus is that the bare plurals in kind readings in German(ic) make use of this “mass plural”. The kind reading itself arises through such an impoverished structure of the DP together with the relevant operator in the verbal/clausal projection. The characterizing statements with an indefinite article, cf. (8), which are – recall – very close to kind readings but not identical, have a nominal syntax with a lexicalisation of the head ‘individual’, but the aspectual/temporal specification of the clause in which they occur is at least non-episodic, i.e., without a specific time reference and thus lead to a generic interpretation.

6 Conclusion

Starting with the well-documented phenomenon that in Bavarian, mass nouns may occur with the indefinite article, this essay reported how this construction was examined in more detail in Alemannic within the project SynAlm. As a first result, the observation that the construction occurs in the neighbouring Alemannic dialects as well, could be confirmed – with a high acceptance in BW but a very reluctant one in CH. A closer examination of neighbouring constructions revealed that the phenomenon has indeed much more facets than a mere two-fold distinction between ‘having the IA+mass construction or not’ would suggest. It turned out that many more factors have to be considered: concerning the nominal expression itself and the possibility to insert an indefinite article, the notion of the subkind reading – in contrast to the subset (situational partitivity), the proper kind, the characterizing statement, and the existential reading – plays a crucial role, as with this reading, the IA+mass can be subsumed under ‘individual’ and thus the IA is licensed (or even required) also in those dialects that do not lexicalise situational partitivity with the IA. This situation was modelled with a fine-grained functional sequence above the noun with different lexicalisation options, whereby the common semantic building block ‘contrast’ was suggested to encompass all usages in all dialects. Some have a richer lexical entry (restricted to individuals) and thus a more restricted distribution. With this kind of modelling, the huge difference found in translation and acceptance tasks can be captured quite easily, as there is only one component within the lexical entry at variance. And given that the very same functional sequence is present in all languages, only a

small step is needed for ‘dropping’ this component and in turn accept the IA+mass also in the situational partitivity reading.

Concerning the verbal predicate and the aspectual/temporal specification of the clause, it was observed that here as well many more factors may play a role when informants construe the situation on the basis of a given sentence. For the relatively high acceptance of the IA+mass under the intensional verb *brauchen* (‘need’), it was speculated that some speakers construed rather subkinds (intended) partition. And since subkinds are lexicalised with the IA, the deviant results could then be captured. Whether these speakers indeed had such a reading in mind, cannot be proven on the basis of the data we have. But such a possibility should be kept in mind and the context be controlled for accordingly in future work on partitives and their exponents.

Still, the data obtained gave rise to the following theoretical considerations. Following recent exo-skeletal approaches to syntax, I suggested a universal fine-grained, semantically motivated, functional structure above the lexical root. Differences between languages are not due to different syntactic structures (e.g., Bavarian has an ‘additional’ D⁰-head for the IA), rather, the variation is to be sought in the differing possibilities to lexicalise these heads. The place of variation is thus entirely restricted to the lexicon. However, languages do not randomly select any lexical items, rather the lexical item in question must stand for a concept that is plausibly connected to the respective functional head. In the case of the IA, I suggested that the relevant basic notion that it stands for is that of ‘contrast’, being a component in all attested usages discussed here. The difference is that some variants apply this concept very broadly, which means that the partitioning of substance (situational partitivity) is covered by it, i.e., IA+mass is possible, whereas others apply ‘contrast’ to distinguishing properties, i.e., IA+mass is only possible in subkind readings. Finally, it was discussed how this structure (and its various lexicalisation possibilities) might be able to capture neighbouring constructions like pure kind readings, the combination with weak quantifiers and/or measure phrases. Needless to say that much more work is needed to justify or probably further refine this structure.

Abbreviations and Notations

BW	Baden-Württemberg
CH	Switzerland
DAT	dative
FEM	feminine
GEN	genitive
IA	Indefinite article
MHG	Middle High German
PL	plural

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**Partitive Constructions and Partitive Elements
Within and Across Language Borders in Europe**

edited by Elvira Glaser, Petra Sleeman,
Thomas Strobel, Anne Tamm

Pseudo-Partitives and Individuation

A Study on Adnominal Genitives in German

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Abstract Pseudo-partitives in German do not normally allow genitive marking of the inner nominal, but in the presence of an adjective this is possible. But even then, it is usually a marked option. It has been suggested that genitive marking is the preferred option if the inner nominal is plural. This is partly true, but we adduce additional observations suggesting that there are also semantic conditions making reference to the degree of individuation of the referent of the inner nominal: genitive marking is preferred if the inner nominal denotes a plurality of referents that are high on the individuation scale.

Keywords Pseudo-partitive. Individuation. Genitive. German. Adjectival inflection.

Summary 1 Introduction. – 2 Genitives and Pseudo-Partitives. – 2.1 The Genitive Problem. – 2.2 Genitive or Not? – 3 Data Assessment and Reflections. – 3.1 Practical Considerations. – 3.2 The Survey. – 3.3 Some Further Comments. – 4 Theoretical Ramifications. – 5 Concluding Remarks.



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1 Introduction

Simple pseudo-partitives in German involve juxtaposition of two nominals, the classifier/measure noun and the inner nominal.¹ Genitive marking on the inner nominal is not normally an option:

- (1) a. *ein Liter / Glas Wein*
a liter / glass wine
'a liter / glass of wine'
b. *ein Kilo / Sack Karotten*
a kilo / sack carrots
'a kilo / sack of carrots'
c. **ein Liter / Glas Wein-es*
a liter / glass wine-GEN

In the presence of an adjective, however, genitive marking is possible, but even here it is not mandatory. Instead we observe a competition of various constellations. For simplicity, we will only focus on the aspect most relevant here – the presence/absence of genitive marking:

- (2) a. *ein Liter französisch-en Wein-es*
a liter French-WK.GEN wine-GEN
b. *ein Liter französisch-er Wein*
a liter French-NOM.SG wine
'a liter of French wine'

For the most part, it would seem as though this is a matter of style/register; to a great extent, use of the genitive is a feature of formal/written language. This would explain why the genitive is not normally used in pseudo-partitives (even when possible), and dispreferred when compared to alternative constructions. A recent study by Zimmer (2015) argues that, at least with plural inner nominals, the genitive is actually the preferred option. We will argue here that this

We would like to thank two anonymous reviewers for valuable comments and constructive feedback on a previous draft, which helped improve the quality of this article considerably. All remaining shortcomings are ours.

One point deserves mentioning: we have not been able to incorporate all suggestions by the reviewers, notably those concerning aspects of the methodology. The reason is that the study underlying the discussion was a mere preliminary survey intended to get a first impression of a range of phenomena. It does not fully comply with the standards for experiment design, but cannot be modified after the fact, either. We will incorporate the suggestions unaddressed here in a follow-up study (in preparation).

1 We adopt the term “inner nominal” from Falco, Zamparelli 2019, and analogously use “outer noun/nominal” for the classifier/measure noun.

observation is a step in the right direction, but also that it is not the context PLURAL per se that favours the genitive. We will suggest that the genitive appears to make a semantic contribution in that it has an individuation effect, or, conversely, that the genitive is the preferred option *iff* the referent of the inner nominal is high on the scale of individuation, or construed as a plurality of individuals.

This claim, if true, could have far-reaching consequences for the analysis of pseudo-partitives or even genitive noun phrases more broadly in Modern German. However, the data situation is not as clear as suggested above, and it is far from obvious to what extent other native speakers share this intuition. The problem lies in the status of the genitive; semantic and stylistic considerations overlap, and with individual examples it is not clear at all how to evaluate/judge the genitive.

The article is structured as follows. In Section 2, we will discuss the (morphosyntactic) licensing conditions and use of (adnominal) genitives in Modern German. We will then look specifically at genitives in pseudo-partitives and suggest that the genitive has an individuation effect on the referent of the inner nominal. In Section 3, we will discuss a preliminary survey that, to some extent, corroborates this underlying intuition, but also offer some critical reflection and comments. Section 4 briefly addresses some theoretical concerns, and Section 5 concludes.

2 Genitives and Pseudo-Partitives

Even though, technically, Modern German possesses morphological genitive marking for certain items, its precise status as an element of German grammar is rather elusive. To a great extent, the genitive is on the retreat in (spoken) German, its function being taken over by the preposition *von*:

- (3) a. *das Auto* *von* *mein-em* *Lehrer*
the car from my-DAT teacher
‘my teacher’s car’
- b. *die Schwester* *von* *mein-em* *Lehrer*
the sister from my-DAT teacher
‘my teacher’s sister’
- c. *manche* *von* *d-en* *Äpfel-n*
some from the-DAT apples-DAT
‘some of the apples’

Several German dialects have completely lost a morphological genitive, but also in Standard German, which does still possess the genitive, use of the genitive is often associated with a higher register or

written language. Colloquially, the prepositional paraphrase is typically preferred. Setting aside this particular issue, there are some peculiar morphological and morpho-syntactic aspects to consider.

In general, the exponence of nominal inflection is rather deficient, but in contexts such as possession, kinship, and (proper) partitivity, morphological genitive marking on the dependent noun phrase (~ inner nominal) is a possibility; compare (3) and (4):

- (4) a. *das Auto* *d-es* *Lehrer-s*
 the car the-GEN teacher-GEN
 ‘the teacher’s car’
 b. *die Schwester* *d-es* *Lehrer-s*
 the sister the-GEN teacher-GEN
 ‘the teacher’s sister’
 c. *manche* *d-er* *Äpfel*
 some the-GEN.PL apples
 ‘some of the apples’

Run-of-the-mill pseudo-partitive constructions, on the other hand, usually comprise a juxtaposition of two nouns without any dependency marking, notably without genitive marking on the inner nominal:²

- (5) a. *zwei Liter Wein* b. **zwei Liter Wein-(e)s*
 two liter wine two liter wine-GEN
 ‘two liters of wine’

This is not, however, the whole story because, in the presence of an adjective, it is possible to mark the inner nominal with a genitive. In Section 2.1, we first address the licensing of adnominal genitives in Modern German, and in Section 2.2, we will look at some semantic consequences.

2 In older stages of German, the genitive was regularly used in such contexts:

- (i) a. *zua flasgun uuin-es* (Old High German)
 two bottles wine-gen
 DDD-AD-Kleinere_Althochdeutsche_Denkmäler_1.2 > BR1_BaslerRezept1
 b. *zehenzug mezzo* *ol-es*
 a hundred measure oil-gen
 DDD-AD-Tatian_1.2 > T_Tat108

These examples are retrieved from the *Referenzkorpus Altdeutsch* (Reference Corpus of Old German) via the ANNIS search interface at <https://korpling.german.hu-berlin.de/annis3/ddd>. Zimmer (2015, § 2) gives a brief overview of the decline of the partitive genitive from Middle High German onwards.

2.1 The Genitive Problem

While masculine and neuter (= [-FEM]) nouns have a genitive singular exponent, feminine nouns do not display any case marking at all. The [-FEM.SG] exponent *-(e)s* is associated with strong nouns, where the qualifier ‘strong’ makes reference to an inflectional class (diachronically, a family of inflectional classes). Besides, there is a class of ‘weak’ masculine nouns that display a general oblique-case marker *-(e)n*. Plural nouns do not have a genitive exponent at all.³

Adjectives, on the other hand, have two kinds of inflection; they can inflect both strongly and weakly. This is a property of the category A, rather than a lexical property of individual items. It is the morphosyntactic environment that determines which inflection is chosen: if an (adnominal) adjective is preceded by an inflected determiner, it inflects weakly, if it is preceded by a zero element, it inflects strongly. However, the adjectival inflection has lost the strong genitive ending *-(e)s* for the [-FEM.SG] forms and uses the weak form instead.⁴ Determiners only display the strong inflection. Both adjectives and determiners have a (strong) plural exponent for the genitive.

With these basic facts in place, let us have a closer look at genitive noun phrases. First observe that a genitive noun phrase cannot comprise merely a bare noun (examples are based on Sternefeld 2004, 21):

- (6) *der Geschmack...*
‘the taste (of)...’
- a. **Wein-es* (masc, strong; genitive realised = strong genitive)
wine-GEN (intended: ‘the taste of wine’)
 - b. **Limonade* (fem; no genitive exponent)
lemonade (intended: ‘the taste of lemonade’)
 - c. **Bär-en* (masc, weak; case realised = weak oblique)
bear-wk (intended: ‘the taste of (a) bear/bear-meat’)

3 As an anonymous reviewer points out, nominalised adjectives could be viewed as ‘(apparent) counterexamples’; nominalised adjectives and participles retain the adjectival inflection, and as such, they do have a genitive plural ending (see next paragraph):

- (i) *die Angewohnheit Jugendlich-er*
the habit youthful-GEN.PL
‘the habit of teenagers (lit.: young-ones)’

For the purpose of this article, we will disregard deadjectival nouns.

4 Thus, while *gut-es Wein-es* ‘good-STR.GEN wine-STR.GEN’ was an option until ca. the nineteenth century, Modern German uses *gut-en Wein-es* ‘good-wk wine-STR.GEN’ instead (*Wein* ‘wine’ is masculine).

- d. **Würist-e* (plural; no genitive exponent)
sausage-PL (intended: ‘the taste of sausages’)

This is a formal property of the genitive per se in that the restriction applies to adnominal genitives at large, regardless of the semantics the relation is to express:⁵

- (7) a. **ein Glas / ein Liter* *Wein-es*
a glass / a liter wine-GEN
b. **ein Freund* *Wein-es*
a friend wine-GEN
c. **der Verzehr* *Wein-es*
the consumption wine-GEN

There are two conditions for genitive noun phrases to be licit: (i) the noun has to be accompanied by an inflecting element (adjective, determiner), and (ii) at least one of the inflecting elements involved has to have a strong genitive ending. The latter condition entails that the genitive may be realised only on the noun, cf. (8a)/(11a), only on an adjective/determiner, cf. (9)/(11b), or on two elements simultaneously, cf. (8b). Since, by definition, weak (masculine) nouns have no strong genitive marker and adjectives are defective in the genitive for [-FEM.SG], neither can satisfy condition (ii) and an additional element is required, cf. (10a) vs. (10b):

- der Geschmack...*
‘the taste (of)...’
- (8) a. *gut-en* *Wein-es* (masc, strong)
good-WK wine-STR.GEN.SG.-FEM
‘the taste of good wine’
b. *dies-es* *Wein-es* (masc, strong)
this-STR.GEN.SG.-FEM wine-STR.GEN.SG.-FEM
‘the taste of this wine’

5 For comparison: in Icelandic, the genitive cannot be used with pseudo-partitives as in German, see example (i-a) below, cf. (7a), but it is fine with other kinds of semantic relations, as in (i-b-d), cf. (6a) and (7b-c):

- (i) a. **glas / lítri vín-s* c. *neysla vín-s*
glass / liter wine-GEN consumption wine-GEN
b. *vinur vín-s* d. *bragð vín-s*
friend wine-GEN taste wine-GEN

-
- (9) a. *frisch-er* *Limonade* (fem)
 fresh-STR.GEN.SG.FEM lemonade
 ‘the taste of fresh lemonade’
- b. *dies-er* *Würst-e* (pl)
 these-STR.GEN.PL sausage-PL
 ‘the taste of these sausages’
- (10) a. **gebraten-en* *Bär-en* (masc, weak)
 steaked-WK bear-WK
- b. *ein-es* *gebraten-en* *Bär-en*
 a-STR.GEN.SG.-FEM steaked-WK bear-WK
 ‘the taste of a steaked bear’

If conditions (i) and (ii) are satisfied, genitive marking is possible in all kinds of nominal relations, (apparently) regardless of the semantics – including on pseudo-partitives:

- (11) a. *ein Freund* *gut-en* *Wein-es*
 a friend good-WK wine-STR.GEN.SG.-FEM
- b. *der Verzehr* *lecker-er* *Würst-e*
 the consumption delicious-STR.GEN.PL sausage-PL
- c. *ein Glas / ein Liter* *gut-en* *Wein-es*
 a glass / a liter good-WK wine-STR.GEN.SG.-FEM

This phenomenon is well known (see e.g. Schachtl 1989; Gallmann 1990; 1996; 1998; Müller 2002; Sternefeld 2004; 2006; Zimmer 2015; see Gallmann 2018 for a recent discussion and some complications), but it is an open question how to best account for it. We will not be concerned with its actual analysis, but rather use it as a backdrop against which we describe another observation. In the following, we will use the gloss GEN for strong genitives (on determiners, adjectives and nouns), and AGR for everything else (weak or non-genitive forms).

2.2 Genitive or Not?

It has transpired that pseudo-partitives can involve genitive marking after all, provided the inner nominal is modified by an adjective. Nonetheless, the fact that genitive marking is possible here does not entail that it is mandatory in these contexts. In fact, zero-marking on the noun seems to be the default, even in the presence of an (inflecting) adjective, while the genitive version is stilted and sounds archaic or artificial. The adjective in the non-genitive version tends

to agree in case with the outer nominal (but in gender with the inner nominal), i.e. it displays the case that is assigned to the macro noun phrase by the external context.⁶

- (12) a. *ein Glas kühl-es Bier*
a glass cool-AGR beer
(AGR = NEUT.NOM/ACC; *Bier* is neuter)
- b. *ein Glas gut-er/gut-en Wein*
a glass good-AGR wine
(AGR = MASC.NOM / MASC.ACC; *Wein* is masculine)
- c. *ein Glas frisch-e Milch*
a glass fresh-AGR milk
(AGR = FEM.NOM/ACC; *Milch* is feminine)

We will refer to the two types as AGR and GEN, respectively. In individual cases, the contrast between the AGR and the GEN versions may be perceived as stronger than in others, but largely it seems as though there really is only a stylistic difference – at least, in the singular.

2.2.1 Zimmer (2015): Genitives and Plurals?

Zimmer (2015) reports on a study (judgement tasks) on the morpho-syntactic expression of pseudo-partitivity. In particular, he examines the roles of adjectival inflection and (non-) genitive marking.⁷ One finding is that the genitive is a marked and dispreferred option in most contexts even though the inner nominal involves an adjective. He suggests, however, that grammatical number makes a difference reporting that genitive marking is clearly the preferred option if the inner nominal is a plural, irrespective of the external case environment.⁸ Some examples including the judgement mean are given below (the scale ranges from 6 = perfect to 1 = totally unacceptable):

⁶ Put differently: the outer nominal is opaque to case assignment from outside. While this is largely true for noun phrases in nominative/accusative contexts, there are complications, uncertainties and speaker variation in other case environments; see Zimmer 2015 for discussion and further references.

⁷ He looks at a number of alternatives to genitive marking on the inner nominal, e.g. dative or accusative or weak inflection on the adjective (all these are summarised here as AGR), and contrasts those with genitive marking on the adjective (and, where applicable, noun).

⁸ “Partitive Genitive werden bei Artangaben im Plural deutlich besser bewertet als bei Artangaben im Singular. Der partitive Genitiv wird unabhängig davon, welcher Kasus vorausgeht, im Plural als sehr gut bewertet” (Zimmer 2015, 15).

(13)	a.	[...] <i>wie ein Rudel hungrig-er</i> like a pack hungry-GEN	<i>Wölfe</i> wolves	4,9
	b.	[...] <i>mit einer Gruppe jung-er</i> with a group young-GEN	<i>Menschen [...]</i> people	5,5
	c.	[...] <i>mit einer Gruppe jung-e/jung-en</i> with a group young-AGR (Zimmer 2015, 15-16)	<i>Menschen[...]</i> people	1,5

This is a rather interesting observation, which implies that the behaviour of plural inner nominals deviates from that of singular ones. But the issue is more complex than that. Zimmer puts emphasis on the formal property PLURAL, but notice that all of his (plural) examples involve living beings (humans and wolves). As we will show in the following, number may be a precondition for a higher acceptability of the genitive in pseudo-partitives, but there appear to be other semantic factors as well.

2.2.2 Kinds and Individuation

With the results of Zimmer’s study in mind, consider the following examples:

- (14) *Ich hätte gerne...*
‘I’d like to have...’
- a. *ein Kilo gelb-e Rüben*
a kilo yellow-AGR turnips
‘a kilo of carrots’
- a’ *??ein Kilo gelb-er Rüben*
a kilo yellow-GEN turnips
‘a kilo of yellow turnips’
- b. *ein Kilo saur-e Gurken*
a kilo sour-AGR cucumbers
‘a kilo of pickled cucumbers’ or: a type of candy (‘Sour Pickles’)
- b’ *??ein Kilo saur-er Gurken*
a kilo sour-GEN cucumbers
‘a kilo of sour cucumbers’

Here the genitive is strongly dispreferred in spite of the plural context. This suggests that Zimmer’s observation reported above does not generalise across all kinds of inner nominals. In addition, we observe two semantic contrasts. For one thing, notice that adjective and noun potentially constitute an idiomatic phrase denoting a

type of food: ‘yellow turnips’ means carrots in several German dialects, and ‘sour cucumbers’ denote either pickled cucumbers or a type of candy. This idiomatic reading is only preserved in the AGR type, whereas the GEN type produces a compositional, i.e. literal interpretation. Thus, (14a’) is literally about turnips that are yellow, and (14b’) about cucumbers that are sour.⁹ There is another semantic contrast: while the AGR version presents the denotation of the inner nominal as a type of food (= kind) or substance (= mass), the GEN version appears to produce an individuation effect of sorts: ‘each (individual) turnip is yellow; each (individual) cucumber is sour’. Notice that food contexts with pseudo-partitives typically invite a mass/type reading, which would then account for the fact that GEN is dispreferred in the above examples. The individuation effect in (14) is rather subtle, but it is possible to diagnose it indirectly: if the inner nominal denotes a referent that is high on the individuation scale, such as living/human beings,¹⁰ and a plurality of individuals is the expected denotation, the preferences are reversed, i.e. GEN is the preferred option:

- (15) *Gestern habe ich... gesehen*
‘yesterday I saw...’
- | | | | |
|----|---|--------------------------------------|--------------------------------------|
| a. | <i>eine Gruppe</i>
a group
‘a group of foreign students’ | <i>ausländisch-er</i>
foreign-GEN | <i>Studenten</i>
students |
| a’ | ?? <i>eine Gruppe</i>
a group | <i>ausländisch-e</i>
foreign-AGR | <i>Studenten</i>
students |
| b. | <i>eine Horde</i>
a horde
‘a horde of furious football fans’ | <i>wütend-er</i>
furious-GEN | <i>Fussballfans</i>
football.fans |
| b’ | ?? <i>eine Horde</i>
a horde | <i>wütend-e</i>
furious-AGR | <i>Fussballfans</i>
football.fans |
| c. | <i>eine Delegation</i>
a delegation
‘a delegation of catholic nuns’ | <i>katholisch-er</i>
catholic-GEN | <i>Nonnen</i>
nuns |

⁹ While (14b’), by virtue of its lexical meaning, can potentially allude to pickled cucumbers, it cannot denote the type of candy called “Saure Gurken” (‘Sour Pickles’).

¹⁰ See the detailed discussion by Grimm (2012, 54 ff.; 68-71); for the purpose of this essay, we will assume the following simplified version of that hierarchy:

(i) substance < small objects < insects/small animals < large(r) objects < animals < humans

For any given referent, the further to the right on the scale it can be located, the greater the probability that a language will conceptualise it as an individual, and the greater the likelihood that it associates with grammatical means indicating individuation such as, e.g. plural marking – and as we are suggesting here: genitive marking in pseudo-partitives.

c'	?? <i>eine Delegation</i> a delegation	<i>katholisch-e</i> catholic-AGR	<i>Nonnen</i> nuns
d.	<i>eine Herde</i> a herd 'a herd of graceful gazelles'	<i>anmutig-er</i> graceful-GEN	<i>Gazellen</i> gazelles
d'	?? <i>eine Herde</i> a herd	<i>anmutig-e</i> graceful-AGR	<i>Gazellen</i> gazelles

This also holds true if the outer nominal is a quantity expression, regardless of whether it suggests plurality/individuation by itself ('number') or not ('quantity'); see the contrast in (16).¹¹

(16) a.	<i>eine Anzahl</i> a number 'a number of German citizens'	<i>deutsch-er</i> German-GEN	<i>Bürger</i> citizens
a'	?? <i>eine Anzahl</i> a number	<i>deutsch-e</i> German-AGR	<i>Bürger</i> citizens
b.	<i>eine Menge</i> an amount 'a large quantity of German citizens'	<i>deutsch-er</i> German-GEN	<i>Bürger</i> citizens
b'	?? <i>eine Menge</i> an amount	<i>deutsch-e</i> German-AGR	<i>Bürger</i> citizens

Together these observations suggest, on the one hand, that the AGR type is a simple extension of regular pseudo-partitives with the inner nominal denoting a kind/mass. This is also in line with the view "that in [...] expressions [like 'two kilos of books'; 'two boxes of books'], *books behaves like a mass noun*" (Rothstein 2011, 2; emphasis added), i.e. that the plural marking of the inner nominal in pseudo-partitives is actually a 'pseudo' plural with a mass denotation – which is especially obvious in food contexts. On the other hand, the GEN type makes an additional semantic contribution, which can be described as individuation effect. Therefore, an inner nominal with plural reference has a genitive preference if the referent is high on the individuation scale (e.g. a living/human being), as illustrated in (15)-(16); the context PLURAL as such is not sufficient. The genitive in food contexts, where a mass reading is expected, however, sounds unnatural because of this individuation effect, but also because a potential-ly idiomatic reading is lost, see (14).

However, as mentioned, the individuation effect is rather subtle, and often not (immediately) perceptible by many native speakers. The

¹¹ The classifier noun *Anzahl* only combines with countable nouns, whereas *Menge* is compatible with both countable and mass nouns, cf. *eine Menge deutsches Bier* 'a lot of German beer'.

judgements reported in this subsection are the author's. It is therefore not clear how general this assessment is. While several native speakers consulted largely agree with the judgements given above for (14) and (15) as such, the overall picture is not entirely straightforward. On the one hand, there are dissenting views on the interpretation of the judgements, and on the other hand, we also encounter a wide range of judgements. In the next section, we will discuss some material that motivated the claims made above in the first place, and address some aspects that need to be examined more carefully.

3 Data Assessment and Reflections

In order to address a number of questions concerning form and interpretation of pseudo-partitives and genitive constructions, an online survey (google forms) was conducted in October-December 2022.¹² It was intended as a preliminary study,¹³ providing a broad overview and feedback as input for a more focused follow-up study (in preparation). The participants were told about the goal of the study and asked to base their judgements on their own intuition rather than on normative guidelines. They could optionally indicate their age, place of residence, and which dialect/variety they use most in everyday life; in addition, they had the option to comment on each question individually, as well as about each questionnaire as a whole. These comments were intended for internal use, but some illuminating comments will be presented below. Due to the immense amount of material, the questions were (randomly) distributed across four questionnaires (ca. 20 questions per questionnaire). Those were, in turn, disseminated via social media and mailing lists, and eventually answered by 38, 49, 30, and 45 participants, respectively. Even though around half of the participants indicated some Southern German variety as their everyday language or dialect, the rest comprises Central and Northern German, as well as Belgian German, Swiss German and Austrian varieties. In the following, we will ignore the metadata, and mostly focus on the data as such.

12 Accessible at the following links:

1. https://docs.google.com/forms/d/e/1FAIpQLScVRBm-R4PTXGzoX7IFxcnIMyMrygt-PjVMwkK_IGGVmbrQ1yQ/viewform?usp=sf_link;
2. https://docs.google.com/forms/d/e/1FAIpQLSc_Uo0Imff7oB-GCPEQUH0t0Np0-ykI-aHzh2MeB2Cgo7k3hA/viewform?usp=sf_link;
3. https://docs.google.com/forms/d/e/1FAIpQLSdfcORU_mMHDIno5RnjWbEvfL3EA4x_DITge4VAJQMEMN18Kg/viewform?usp=sf_link;
4. https://docs.google.com/forms/d/e/1FAIpQLSejf6LORCbc9LgW0Fb9vKyrL34LMkZ6kYvzb3iu2eD_yCf-Q/viewform?usp=sf_link.

13 I.e. without full-fledged experiment design and not intended for in-depth statistical analysis.

3.1 Practical Considerations

Above it was stated that unmodified pseudo-partitives take an unmarked inner nominal, but in many cases, it is also possible to embed the inner nominal with a preposition (*an* ‘on’; *von* ‘from’). Hence, several tasks asked to evaluate the options zero vs. genitive vs. *an* vs. *von* – with and without an adjective. In this case, each option could be evaluated on a Likert scale from 1 (‘perfect’) to 7 (‘totally bad’). To illustrate this, consider the following example:

- | | | |
|------|--|------|
| (17) | Die Zuschauer erwartet im kommenden Herbst [...] | n=30 |
| | ‘Spectators can look forward to [<a series of events>]’ | |
| a. | eine Reihe <i>Veranstaltungen</i> (zero) | 3.4 |
| b. | – (→ no plural genitive marking on N) | |
| c. | eine Reihe an <i>Veranstaltungen</i> (preposition <i>an</i>) | 2.8 |
| d. | eine Reihe von <i>Veranstaltungen</i> (preposition <i>von</i>) | 1.8 |
| | | |
| (18) | Die Zuschauer erwartet im kommenden Herbst [...] | n=30 |
| | ‘Spectators can look forward to [<a series of special events>]’ | |
| a. | eine Reihe <i>besonder-e</i> <i>Veranstaltungen</i> (A-AGR) | 4.1 |
| b. | eine Reihe <i>besonder-er</i> <i>Veranstaltungen</i> (A-GEN) | 1.6 |
| c. | eine Reihe an <i>besonderen</i> <i>Veranstaltungen</i> (preposition <i>an</i>) | 2.6 |
| d. | eine Reihe von <i>besonderen</i> <i>Veranstaltungen</i> (preposition <i>von</i>) | 1.8 |

The outer nominal *Reihe* ‘series’ requires a countable inner nominal in the plural, cf. (16a), or put differently: a plurality of individuals. In accordance with what was said in Section 2.2.2, we should expect genitive marking on the inner nominal as the preferred option. This, in turn, is only visible in the presence of an adjective, and indeed, the GEN version scores best, cf. (18b). Notice, however, that the *von* version has practically an equally good score, regardless of the presence of an adjective, cf. (17d)/(18d). Recall from Section 2 that this preposition has been taking over most functions of the genitive in colloquial German. In a way, it could be viewed as a stand-in for formal genitive marking and indirectly supporting the idea that ‘genitive’ marking is associated with individuation. This is a problematic view, however, because *von* is not only in opposition to zero marking/AGR here, but potentially also to genitive marking as such, compare (3) vs. (4). Moreover, the main purpose of this sort of task is actually to examine the prepositions *an* vs. *von*, rather than the contribution of adjectival inflection.

Therefore, a second kind of task was used that specifically addresses that issue; for the remainder, we will focus on this task. Originally, the respective questions were conceived of as a brute ‘forced-choice’

task, where participants should choose between GEN and AGR in a given context. However, since we expected uncertainties in many cases, there was a risk that participants might simply guess and randomly pick either one. In order to avoid that, we decided on a ‘mitigated forced-choice’ task giving the participants the following options:

- (A): only GEN is possible here
- (B): only AGR is possible here
- (AB): GEN and AGR are both possible

If participants lacked a clear intuition as to which option is ‘better’ or whether there even is a ‘better option’, they could choose (AB). We expected this to be the case with many examples and many participants because, in many cases, it is simply not obvious which option is better. Option (AB) does not itself address any of our questions, but it ensures a greater reliability for the numbers for (A) and (B); the numbers for (AB) itself, in turn, can be understood as a ‘measure of uncertainty’. The participants also had the opportunity to comment on potential differences between (A) and (B) if both were considered possible. We asked especially for semantic differences; the reason for this was to see how native speakers would describe that perceived difference. In at least 100 comments, however, the participants alluded to a difference in register instead, stating that AGR is used colloquially, but GEN belongs to a more formal register. Labels used for the latter include ‘standard’, ‘prescriptive’, ‘correct’ etc. It is rather curious that several comments imply a dichotomy ‘correct’ (GEN) vs. ‘colloquial’ (AGR); this is especially, noteworthy because in one case, GEN was described as ‘grammatically correct’, but in the very same example, it scored 0%. The situation is thus such that often speakers are aware that the genitive is somehow ‘correct’ and, at the same time, they do not use it. This is precisely why the option (AB) was added. At the same time, we expected at least some contrasts to be reflected in the numbers where the ratio (A) : (B) is of primary interest.

3.2 The Survey

Unsurprisingly, we corroborated Zimmer’s (2015) finding that, with a singular inner nominal, there is a strong preference for AGR. Below we give the mean scores of all examples of this type:

- (19) *Singular inner nominals (mass):*
 - (A): 5.2%
 - (B): 48.2%
 - (AB): 46.7%

Moreover, we also find strong corroboration for the ideas expounded in Section 2.2.2. First of all, on average, more than 50% of the participants chose the option (A) = 'GEN only' if the referent was +animate (which in most cases also meant +human):

(20) *Plural inner nominals (+animate/human):*

(A):	53.8%
(B):	4.8%
(AB):	41.5%

Below some examples are given for illustration:

(21)	[a herd of graceful gazelles]	n=45
	(A) <i>eine Herde anmutig-er Gazellen</i>	37.8%
	(B) <i>eine Herde anmutig-e Gazellen</i>	4.4%
	(AB)	57.8%
(22)	In front of the theatre [a group of former actors] gathered	n=38
	(A) <i>eine Gruppe ehemalig-er Schauspieler</i>	55.3%
	(B) <i>eine Gruppe ehemalig-e Schauspieler</i>	2.6%
	(AB)	42.1%
(23)	[a delegation of catholic nuns]	n=38
	(A) <i>eine Delegation katholisch-er Nonnen</i>	60.5%
	(B) <i>eine Delegation katholisch-e Nonnen</i>	5.3%
	(AB)	34.2%

Now consider the numbers of plural inner nominals in food contexts where we find that, as expected GEN is strongly dispreferred:

(24) *Plural inner nominals (food context):*

(A):	6.2%
(B):	33.2%
(AB):	60.6%

The situation is not entirely symmetric, however; the ratio AGR vs. GEN here (33.2 : 6.2) is rather smaller than the ratio GEN vs. AGR in the previous case (53.8 : 4.8). In other words, the preference for AGR is not as strong here as the preference for GEN in (20). Perhaps this simply is the case, but maybe there were other factors at play as well. Consider the following examples; (25) supports our expectations, i.e. a strong preference for AGR:

(25)	‘I’d like to have [a kilo of carrots]’ (→ ‘yellow turnips’; cf. (14a/a’))	n=45
	(A) <i>ein Kilo gelb-er Rüben</i>	0.0%
	(B) <i>ein Kilo gelb-e Rüben</i>	42.2%
	(AB)	57.8%

However, the following example should have yielded similar results, but there is a noticeable difference, viz. a significantly smaller preference for AGR:

(26)	In a candy store: ‘I’d like to have [a pack of ‘Sour Pickels’] (PS: those from Haribo)’ (→ ‘sour cucumbers’; cf. (14b/b’))	n=45
	(A) <i>eine Packung saur-er Gurken</i>	4.4%
	(B) <i>eine Packung saur-e Gurken</i>	26.7%
	(AB)	68.9%

The question contained two explicit cues (‘candy store’; *Haribo*) that should only allow the ‘candy’ interpretation and rule out the ‘cucumber’ interpretation, but it turns out that not everybody even knows that type of candy. Thus, these numbers may not be entirely reliable.

Minimally, the contrast between (20), (21)/(22)/(23) vs. (24), (25)/(26), i.e. the different (dis)preferences, shows that plural number on the inner nominal is not a sufficient condition for GEN, contra Zimmer (2015). Semantic aspects also need to be taken into account; more precisely, there is a clear and strong preference for GEN only if the inner (plural) nominal denotes a +animate/human referent.

In this context, it is worthwhile pointing out the following contrast. Baby-chicks may not be at the top, but, as +animate referents, they are still rather high up on the scale of individuation. In the example below, the modifier ‘newly/recently hatched’ additionally emphasises the aspect ‘living being’. Given our assumptions, we would expect a strong preference for GEN; this expectation is indeed borne out in (27), but not in (28):

(27)	‘a wagonload of newly hatched baby-chicks’	n=49
	(A) <i>eine Wagenladung neulich geschlüpft-er Küken</i>	71.4%
	(B) <i>eine Wagenladung neulich geschlüpft-e Küken</i>	4.1%
	(AB)	24.4%
(28)	‘a portion of fried baby-chicks’	n=49
	(A) <i>eine Portion gebraten-er Küken</i>	14.3%
	(B) <i>eine Portion gebraten-e Küken</i>	30.6%
	(AB)	55.1%

Even though the (inner) noun is the same, the (dis)preferences are reversed, and, in (28), AGR scores twice as high as GEN, which is a stark contrast to (27) and appears to be unexpected. Notice, however, that – albeit unconventional –¹⁴ ‘baby chicks’ in (28) is construed as a food type or a dish and as such, (28) is an instance of a food context. Given our assumptions, it is actually not too surprising then that we find a preference for AGR here. In other words, contextual/lexical information can impact the way a referent is perceived (living being vs. food); in this particular example, it is the items ‘portion’ and ‘fried’ that strongly suggest a food context. This perceived denotation, in turn, obviously has an impact on the form of the inner nominal (GEN VS. AGR).¹⁵

3.3 Some Further Comments

In Sect 2.2.2, we made a claim about a semantic difference between two types of pseudo-partitives in German, which can be split into two components:

1. AGR is simply an extended version of regular pseudo-partitives; the inner nominal is construed as denoting a substance (mass plural/kind) and potential idiomatic readings are preserved.
2. GEN makes a semantic contribution that can be characterised as individuation such that the inner nominal denotes a plurality of individuals; conversely, the higher the referent of the inner nominal is on the individuation scale, the greater the likelihood that GEN is the preferred option. Potential idiomatic readings are lost.

To a large extent, this claim is corroborated by the results of our preliminary study. At the same time, there are several problems mostly having to do with the interpretation of the results. For even where judgements comply with our expectations, it is not always clear that they were made for the reasons that we assume.

As already mentioned, participants commenting on a potential difference usually make reference to style/register or prescriptive

14 We are not aware of any menu that has fried baby-chicks on it, nor have we reason to believe that any of our participants has ever tasted fried baby-chicks; no actual baby-chicks were harmed in the course of this study. We deliberately also included unconventional examples such as this one.

15 An anonymous reviewer correctly points out that, in (22)/(23), one does not know for sure whether it is the adjective, the outer nominal, or both, that actually cause(s) the difference here, and this certainly needs to be tested more carefully. Nonetheless, we believe that the overall mode of presenting the referent – as a living being or food – is a relevant factor itself.

rules (e.g. 'GEN is grammatically correct, but AGR is ok, too'). Very few alluded to the semantic contrasts under discussion (e.g. 'AGR makes reference to a type/kind'; 'the AGR version is the name of the product 'Sour Pickles', while the GEN version indicates that the cucumbers are actually sour', cf. (14b/b')/(26)). In addition, several participants suggested semantic contrasts that were not anticipated. For instance, in the context of (22), one participant suggested that the GEN version refers to former actors at the theatre mentioned while the AGR version could refer to former actors in general. Also consider the following example:

(29)	'a sack of rotten apples'	n=49
(A)	<i>ein Sack faul-er Äpfel</i>	34.7%
(B)	<i>ein Sack faul-e Äpfel</i>	2.1%
(AB)		63.2%

Notice that the adjective *faul* is ambiguous, meaning either 'lazy' (about people) or 'rotten' (about food). In this context, one participant commented that (A) = GEN means that the apples are lazy, while (B) = AGR means that they are inedible. This may have been intended as a joke, but it is actually a very astute observation, not a random play with the ambiguity. As a matter of fact, we can even discern a certain compatibility with our expectations insofar as the 'lazy' interpretation presupposes living being as referent while the 'inedible' reading applies to food. Thus, very indirectly, this comment affirms the view that GEN is associated with individuals (= living beings).

More generally, several comments on a perceived difference between GEN and AGR may actually confirm (i) and (ii) in spite of talking about different things. At the same time, precisely the diversity of such comments may be an indication that it is not that easy to pinpoint the actual difference between GEN and AGR, and that, possibly, (i) and (ii) may have to be reformulated eventually.

Moreover, recall that the genitive is largely being replaced by the preposition *von*. In many dialects, the genitive has disappeared, and in general, active use of the genitive often indicates that the speaker either has some sort of higher education or, at least, that they are rather familiar with formal/written language. In other words, even if GEN is preferred over AGR given a binary choice as in our survey, it does not necessarily mean that GEN is the only or unmarked form, the version that many speakers would actually use, see also (17) and (18). One consequence of such considerations is that the semantic generalisation cannot be considered a general property of German grammar. We might view it as a feature of a version/variety of German (which is presumably something akin to a register, rather than a regional dialect).

4 Theoretical Ramifications

The focus of this essay is descriptive, rather than theoretical. Nonetheless, we would like to make a brief comment here. To the extent that our claims are on the right track, in (a variety of) German, genitive marking of the inner nominal in adjectivally modified pseudo-partitives brings about an individuation effect in the sense that the referent of the inner nominal is construed as a plurality of individuals (rather than a collective/mass plural). Since Borer (2005), individuation has been associated with a functional head DIV that also hosts plural morphology and classifiers. The problem is that, in the context of pseudo-partitives, this position is associated with the outer nominal, i.e. the measure/classifier noun, see e.g. Mathieu and Zareikar (2015). Since Selkirk (1977) and Jackendoff (1977), pseudo-partitives have been analysed as monophrasal, i.e. as one extended nominal projection. Our claim here thus seems to entail that there are two loci of individuation within the same noun phrase. This is a rather unwelcome consequence that cannot easily be justified.

There is an alternative view, though. We could take genitive marking to indicate that the inner nominal is actually a DP rather than simply an NP. This might account for a number of effects observed with the genitive. Then again, one subclass of pseudo-partitives has actually been argued to be biphrasal, i.e. involving two extended nominal projections, viz. container constructions (like ‘a glass/bottle of wine’ vs. measure constructions like a ‘liter of wine’; e.g. Rothstein 2011; Grestenberger 2015). We then would be saying that the individuation reading and the content reading of inner nominals have the same source: they both constitute a separate DP (potentially indicated by the genitive case). Here the problem is that we would then predict a much greater acceptability of genitive marking with singular inner nominals if they occur with a container noun in the outer nominal; this does not seem to be the case:

(30)	‘a glass of cool lemonade’	n=49
(A)	<i>ein Glas kühl-er Limonade</i>	0.0%
(B)	<i>ein Glas kühle Limonade</i>	44.9%
(AB)		55.1%

In other words, such a construal is not unproblematic, either. It seems that, either way we approach the issue analytically, we run into problems. We leave the issue for further research.

5 Concluding Remarks

In this article, we have made a claim on the semantic effect and the corresponding acceptability of genitive-marked inner nominals in German pseudo-partitives: while AGR is the default option, if the inner nominal denotes a plurality of objects that are high on the hierarchy of individuation (typically, +animate/human referents), GEN is strongly preferred and AGR is dispreferred. This claim has to a large extent been corroborated by a preliminary survey. At the same time, it has been pointed out that the genitive as such has a rather problematic status in German. This is reflected in the fact that survey participants mostly contrast GEN and AGR in terms of register or ‘correctness’, rather in terms of semantic differences, but also in the fact that, in many concrete examples, it is not always easy or obvious which option to choose. Moreover, in Section 4, we hinted at the possibility that GEN may not be a canonical pseudo-partitive from an analytic point of view. Thus, there are still many open questions for further research.

Abbreviations

<small>AGR</small>	agreement (morphology)
<small>AGR</small>	agreement (noun phrase type/construction)
<small>DAT</small>	dative
<small>FEM</small>	feminine
<small>[-FEM]</small>	masculine and neuter
<small>GEN</small>	genitive (morphology)
<small>GEN</small>	genitive (noun phrase type/construction)
<small>NOM</small>	nominative
<small>PL</small>	plural
<small>SG</small>	singular
<small>STR</small>	strong
<small>WK</small>	weak

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**Partitive Constructions and Partitive Elements
Within and Across Language Borders in Europe**

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Corpus Perspectives on Some Irish Gaelic (Pseudo-)Partitives

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Abstract Irish Gaelic is rich in partitive and pseudo-partitive structures, and this essay intends to discuss certain variational aspects of some of these based on corpus and lexicographical data. The structures to be covered are the following: (Type A) Quantifier + glottonym in the genitive; (Type B) Nouns denoting body parts with *cuid* 'part, portion'; and (Type C) Personal numerals in a partitive structure. A) and B) can be considered pseudo-partitives, while C) is a true partitive. As literature on this topic is scarce, the new data provided here are collected from dictionaries (especially the New English-Irish Dictionary – NEID – at foclóir.ie and Ó Dónaill's *Foclóir Gaeilge-Béarla* [Irish-English Dictionary] – FGB), and the Corpus of Contemporary Irish. The focus of this research is to study the variation that is present or is expected to be present in these structures in contemporary usage, and to give possible reasons for the variation if it was attested.

Keywords Irish. Partitives. *Cuid*. Body parts. Personal numerals.

Summary 1 Introduction. – 2 Corpus and Dictionaries Used. – 3 Discussion of the Structures, Presentation and Analysis of the Data. – 3.1 Quantifier + Glottonym in the Genitive (Describing the Degree of Knowledge of a Language) (Type A). – 3.2 Nouns Denoting Body Parts with *Cuid* 'Part, Portion' (Type B). – 3.3 Personal Numerals in a Partitive Structure (Type C). – 4 Conclusion.

1 Introduction

Irish Gaelic belongs to the Celtic branch of the Indo-European language family. It is the first official language of the Republic of Ireland (the second being English) and is one of the 24 official languages of the European Union.¹ Despite its nominally high status, it has only a few tens of thousands of native speakers, who speak several different dialects and are scattered in several officially designated *Gaeltacht* (= ‘Irish-speaking’) areas. The 2022 census did not intend to establish the number of native speakers; instead, it asked questions about the usage of Irish. According to the census data, 71,968 people claimed to speak Irish on a daily basis outside the education system (it is compulsory to learn Irish in schools); but only 20,261 speakers used Irish on a daily basis in the *Gaeltacht* areas. However, about 195,000 people stated that they could speak Irish very well (“Education and Irish Language” 2023; “Laghdú eile...” 2023).²

The geographically and linguistically fragmented nature of native varieties of Irish and the fact that learner speakers by far outnumber native speakers have various consequences for the language. However, it is not the aim of this essay to discuss these. Suffice it here to note that if we compare research done on Irish Gaelic and on English, then it will be obvious that English is a much more extensively studied language than its neighbour. It should not come as a surprise then that Irish (pseudo-)partitives have not yet been explored and discussed in great detail.

Irish is rich in partitive and pseudo-partitive structures,³ and certain corpus aspects of some of these will be discussed here. The structures to be covered are the following:

- a. Quantifier + glottonym in the genitive (as exemplified by the structure describing the degree of knowledge of a language, e.g. *beagán Fraincise* (lit. ‘a little of French’, as in example (1));
- b. Nouns denoting body parts with *cuid* ‘part, portion’, as exemplified by *a cuid gruaige*, lit. ‘her part of hair’, as in example (7); and
- c. Personal numerals in a partitive structure (as exemplified in *triúr againn* in example (14) and *triúr dínn* in example (15), both meaning ‘three of us’).

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1 The terms ‘Irish Gaelic’ and ‘Irish’ will be used to denote the varieties of Gaelic spoken on the island of Ireland. ‘Irish’ would normally be used in Ireland, while ‘Irish Gaelic’ outside Ireland.

2 The census was conducted in the Republic of Ireland, so it does not include data for Northern Ireland.

3 Partitives denote a PART of something, whereas pseudo-partitives denote an AMOUNT of something (Bayda 2018, based on Koptjevskaja-Tamm 2001).

As literature on this topic is scarce (but see Bayda 2018; Kane 2015), the data which supplement existing studies have been collected from dictionaries (see below), and the *Corpus of Contemporary Irish*. It is not the aim of this essay to argue for the categorisation of the structures discussed as partitive or pseudo-partitive; for example, Bayda's argument that the *cuid* possessive construction is a pseudo-partitive one (2018, 52) is accepted (his views are presented in the section on *cuid*). Thus, based on the definition given in footnote 3, A) and B) can be considered pseudo-partitives, while C) a true partitive. Rather, the focus of this research is to study the variation that is present or is expected to be present in these structures in contemporary usage, and to give possible reasons for the variation if it was attested.

2 Corpus and Dictionaries Used

In the following paragraphs a description is given of the corpus and the dictionaries used for this study.

The *Corpus of Contemporary Irish* contains Irish-language texts published from the beginning of the twenty-first century onwards. It has been freely available to the public since 2016 and contains 36.1 million words. If we compare it with other corpora – e.g. the *British National Corpus* contains 100 million words; the *Corpus of Contemporary American English* and the *Hungarian National Corpus* both have more than 1 billion words – then we can say that the Irish corpus is relatively small (although note that the *Hungarian National Corpus* contains non-contemporary material as well). The Irish texts come from 19 sources, which include newspapers, news portals, magazines, journals and scholarly publications, works of fiction, and the news from the Irish-language radio station (Raidió na Gaeltachta) and the Irish National Radio and Television Broadcaster, RTÉ ('Corpus of Contemporary Irish'). Not all the texts were written by native speakers, although the site does not mention this. This means that unless the biography of the author of the source of each quotation is checked, there is no way of knowing whether the given example is from a native or a non-native speaker. The search tool is fairly simple and offers two types of search modes: 'The phrase as is' and 'Broad search'. In the latter mode, inflected and alternate forms of the term(s) searched can be accessed. Two filters can be used: the first one is 'Collections', where the results are filtered according to source(s), and 'Word forms', which can only be used in the 'Broad search' mode, and certain word forms (e.g. the nom. pl. of a noun) can be excluded from the search. However, if the grammatical forms are homonymous (e.g. in some nouns the gen. sg. form is identical with the nom. pl. or the nom. sg. is identical with the gen. pl.), then the search tool is not able to distinguish between them. Also, some

examples are duplicated in the corpus although they have different identification numbers.⁴ Note that it was not possible to filter out duplicated examples in the course of this research. The corpus was compiled by the Gaois research group, which develops various digital resources for the Irish language, and is part of Fiontar & Scoil na Gaeilge [Irish Department] in the Faculty of Humanities and Social Sciences, Dublin City University ('About Gaois').

When searches were made in the corpus, all the relevant grammatical forms of the given words were checked; however, in the presentation of the data here, only the dictionary form of the Irish words is provided.

Foras na Gaeilge's online *New English-Irish Dictionary* (NEID) was launched in 2013. The site does not give information about the current amount of data contained in the dictionary; however, users can learn that in January 2017 it contained 48,000 entries and 140,000 senses ("About"). The latest update was given in July 2023, according to which "a couple of hundred additional entries and senses were added" ("Latest news"). For the researcher, one of the most helpful features of this dictionary is that it can also be used as a corpus, and various types of searches can be made in it. For example, despite it being an English-Irish dictionary, one can also search for all the examples of Irish words or phrases that appear in it. Many of the examples do not seem to be corpus-based, although there is no information about the source of the examples on the site.

Ó Dónaill's *Irish-English Dictionary (Foclóir Gaeilge-Béarla, FGB)* was first published in 1977 and is available online. No information is given about the amount of data and the number of entries it contains; the printed version is of the size of a concise dictionary.

The *Electronic Dictionary of the Irish Language* (eDIL) is a digital historical dictionary of the Irish language, which covers the period from c. 700 to c. 1700.

All of the above resources can be freely accessed by the public.

⁴ For example, the sentence *Beidh banna ceoil seachtair páirteach ann chomh maith* 'A music band of seven people will be a part of it as well' can be found under numbers #2064167 and #2064232 in the corpus, coming from the same article on an online news portal. (Note that apart from the translations cited from dictionaries, all other - both word for word and literal - translations are those of the author.)

3 Discussion of the Structures, Presentation and Analysis of the Data

3.1 Quantifier + Glottonym in the Genitive (Describing the Degree of Knowledge of a Language) (Type A)

3.1.1 Discussion of the Structure

Irish Gaelic has many words that express quantity: e.g. *a lán, mórán, neart, go leor* – all meaning ‘a lot, much, many’; e.g. *a lán airgid* ‘a lot of money’, *airgid* being the gen. sg. of *airgead*. See also examples with *beagán* ‘a little’, as in (1), *roinnt* ‘some’,⁵ as in (2), and *tuilleadh* ‘more’ as in (3).

- (1) *Tá beagán Fraincise agam.*
be.SUBST.PRS little French.GEN.SG at.1SG
‘I have (= I know) a little French.’
Lit.: ‘There is (substantive verb) a little of French at me.’

- (2) *Tá roinnt leabhar aige.*
be.SUBST.PRS some book.GEN.PL at.3SG.M
‘He has some books.’
Lit.: ‘There are (substantive verb) some books at him.’

- (3) *tuilleadh eolais*
more information.GEN.SG
‘more/additional information’

In (1), *Fraincise* is the gen. sg. of *Fraincis* ‘French’. In (2), *leabhar* is the gen. pl. of *leabhar* ‘book’. In (3), *eolais* is the gen. sg. of *eolas* ‘information’. The general rule is that uncountable nouns will select the gen. sg. form, while countable nouns the gen. pl. As scholars have been documenting for the past few decades that the genitive case-form of the noun is on the decline in all the dialects (e.g., see Ua Súilleabháin 1994, 492; Ó hUiginn 1994, 565; Hughes 1994, 630–1, or Péterváry, Ghiollagáin 2014, 36), it would be worth examining some dictionary and corpus data connected to some pseudo-partitive phrases where the genitive form of the noun would be required. The present investigation was restricted to structures containing nouns that denote languages, as a) the great majority of them form their

5 Partitive use of *roinnt*, noun, ‘division’ (FGB s.v. “roinnt”).

genitives in a phonologically quite salient manner (by adding an extra syllable),⁶ b) many learners of the language would meet the gen. sg. for the first time while learning to talk about the languages that they speak, and finally, c) this limited number of nouns yielded an amount of data that was possible to analyse within a limited period of time.

3.1.2 Presentation and Analysis of the Data

Irish Gaelic expresses someone's knowledge of a language with a possessive structure:

- (4) *Tá Francis agam.*
 be.SUBST.PRS French.NOM.SG at.1SG
 'I have (= I know) French.'
 Lit.: 'There is (substantive verb) French at me.'

In this case, the noun denoting the language is in the nom. sg. However, if one wanted to express the level of language knowledge, then literally, the AMOUNT of the given language possessed by the speaker has to be given. For example, in the following example from the NEID, *Spáinnise* is the gen. sg. of *Spáinnis* 'Spanish':⁷

- (5) 'they have a poor grasp of Spanish'
níl mórán Spáinnise acu
 be.SUBST.PRS.NEG a lot Spanish.GEN.SG at.3PL
 Lit.: 'There is not a lot of Spanish at them.'
 (NEID s.v. "poor")

Almost all nouns denoting a language end in the suffix *-(a)is*, are feminine and belong to the second declension; the two most notable exceptions being *Gaeilge*, 'Irish, Gaelic' and *Béarla* 'English'. These latter two have the same form in the nom. sg. and the gen. sg.; however, the language-nouns ending in *-(a)is* have gen. sg. *-(a)ise*, see (5) above.

⁶ Adding an extra syllable to form the gen. sg. is present in other nouns as well; however, there are also many nouns where the gen. sg. is created by palatalising the last consonant of the noun: e.g. *ábhar* /'a:vər/ 'material', *roinnt ábhair* /'a:vər/ 'some material'. For many learners, it is very difficult to distinguish between the palatal and non-palatal versions of some consonants.

⁷ When the example is cited from the NEID, then the order is English phrase/clause/sentence followed by the Irish equivalent (these two being taken from the dictionary), and then comes my literal translation of the Irish equivalent. Also note that the NEID does not use capitalisation and punctuation in its examples, and that is how material from this dictionary is presented here.

Of the glottonyms ending in *-(a)is*, *Breatnais* ‘Welsh’ seems to be the earliest attested, already appearing in Early Irish⁸ (eDIL s.v. “Bretnas”). A search in eDIL for some of the languages of Europe did not yield too many results: the earlier forms of the nouns for French, Italian and Spanish were found, all dated to the seventeenth century (eDIL s.v. “fraingcis”, “Etáil(l)is”, “Spáinnis”), but no noun phrases indicating the level of knowledge.

In the *Corpus of Contemporary Irish*, only a few examples of such structures were found. Some of these are: one example of *roinnt Breatnaise/Gearmáinise/Iodáilise/Spáinnise* (‘some Welsh/German/Italian/Spanish’) each, one of *mórán Breatnaise/Spáinnise* (‘a lot of Welsh/Spanish’) each, one of *beagán Gearmáinise/Iodáilise* (‘a little German/Italian’) each and three of *beagán Breatnaise* (‘a little Welsh’; two of which are from the same interview published in different news portals). No examples of phrases where the glottonym is NOT in the gen. sg. could be found.

The following example from the corpus illustrates the use of the nom. sg. and the gen. sg. forms:⁹

- (6) *Bhí* *Fraincis* *líofa* *aige* *agus* *roinnt*
 be.SUBST.PST French.NOM.SG fluent at.3SG.M and some
Gearmáinise *agus* *Breatnaise.* (#1136424)
 German.GEN.SG and Welsh.GEN.SG
 ‘He had fluent French and knew some German and Welsh.’
 Lit.: ‘There was French fluent at him and some of German and some of Welsh.’

This example shows that in this pseudo-partitive structure two genitives that are dependent on the same noun can be coordinated.

Thus, it can be stated that at least in publications in Irish Gaelic the use of the gen. sg. of the second noun in this type of construction is still the norm. It could be suggested that as Irish grammars and Irish dictionaries codify the use of the gen. sg. in this structure, educated authors of Irish texts would try to follow this norm. (Note that in types B) and C) variation itself is present in grammars and dictionaries.) However, further research would be needed with other quantifier + noun combinations to see if there is variation between the genitive and the nominative in other phrases, and whether the way the gen. sg. of the noun is formed has any bearing on this.

⁸ Early Irish denotes the Gaelic language from the sixth century to the end of the twelfth c. It is also called Early Gaelic (especially in Scotland).

⁹ The source of the corpus example is ainm.ie s.v. “Dáithí Ó hÓgáin (1949-2022)”.

3.2 Nouns Denoting Body Parts with *Cuid* ‘Part, Portion’ (Type B)

3.2.1 Discussion of the Structure

This type is exemplified in (7).

- (7) *a cuid gruaige*
her part hair.GEN.SG
‘her hair’
Lit.: ‘her part of hair’

In (7), *gruaige* is the gen. sg. of *gruaig* nom. sg. ‘hair’.

Modern Irish *cuid* goes back to the Old Irish noun *cuic* /kudʲ/, the primary meaning of which is ‘share, part, portion’.¹⁰ It is attested already in the Old Irish glosses from the eighth century AD. When followed by the genitive, its meaning is ‘some, a certain amount’. eDIL cites 10 examples with the structure possessive pronoun + *cuic* + genitive of noun, “replacing simple noun” (i.e., possessive pronoun + noun in the nominative) (eDIL s.v. “cuic”). For the modern language, the standard reference work on grammar, *Graiméar Gaeilge na mBráithre Críostaí*, confirms that *cuid* often occurs between a possessive pronoun and a noun dependent on it (both with abstract/uncountable nouns and plural nouns) (Ó hAnluain 1999, 115).

Victor Bayda conducted corpus research into this structure (see Bayda 2018). He used *Nua-Chorpas na hÉireann / The New Corpus for Ireland* (NCÉ), a corpus of about 30 million words, about 20% of which make up a native-speaker corpus, where texts are categorised into one of the three major dialects (Bayda 2018, 43). He examined the use of some mass nouns with (i) the bare pronouns *a* ‘his’, *a* ‘her’, *a* ‘their’ and their use with the same pronouns + *cuid*; (ii) the nouns *caint* ‘talk’, *gruaig* ‘hair’ with/without *cuid*; and (iii) pair nouns with the bare pronoun *mo* ‘my’ and the pronoun *mo* with *cuid* (Bayda 2018, 44-5).¹¹ He comes to the conclusion that “[t]he use of *cuid* with mass nouns is highly preferred, whereas with plurals less so”, and “[t]he pseudo-partitive nature of the construction means that *cuid* expresses the idea of the AMOUNT of the possessum which is non-specific, quantifying over a type of objects, unlike partitive constructions which quantify over a set” (2018, 52).

10 Bayda (2018) glosses *cuid* as ‘part’, and this is the first meaning given in FGB as well; thus, this equivalent will be used in this article, though ‘portion’ or ‘share’ might be a more idiomatic rendering in some contexts.

11 Pair nouns: objects or people that come in pairs (e.g. *feet, hands, parents, shoes*).

Apart from such corpus data, there is also lexicographical data, as the NEID has examples of the structure possessive pronoun + *cuid* + noun with more than 100 different nouns, ranging from concrete to abstract ones and belonging to various lexical fields.

For the purpose of the present study, one semantic group will be discussed based on lexicographical and corpus data: structures with body parts. The reasons for this choice are the following: they seem to form a clearly delineable group from the semantic point of view in that they are connected to inalienable possession; they include mass (uncountable) nouns, countable nouns and pair nouns; Bayda's research also includes some body parts; and learners of Irish come across the use of *cuid* with body parts at a fairly early stage.

3.2.2 Presentation of the Data

The NEID features the following nine different nouns denoting body parts in this structure: *fiacail* 'tooth', *fuil* 'blood', *gruaig* 'hair', *ionga* 'nail', *ladhar* 'toe', *lámh* 'hand, arm', *méar* 'finger', *scamhóg* 'lungs', *súil*, 'eye'. Of these, only two, *fuil* and *gruaig* are uncountable, thus they are used in the gen. sg. when preceded by *cuid*:

- (8) 'they transfused his blood'
rinne siad fuilistriú ar a chuid fola
did.PST they blood transfusion on his part blood.GEN.SG
Lit.: 'Did they blood transfusion on his part of blood.'
(NEID s.v. "transfuse")
- (9) 'she has chestnut hair'
tá a cuid gruaige donnrua
be.SUBST.PRS her part hair.GEN.SG chestnut
Lit.: 'There is her part of hair chestnut.'
(NEID s.v. "chestnut")

The other seven are countable nouns, therefore *cuid* is followed by the noun in gen. pl., e.g.:

- (10) 'she clipped her nails'
bhearr sí a cuid ingne
clip.PST she her part nail.GEN.PL
Lit.: 'Clipped she her part of nails.'
(NEID s.v. "clip")

Examples with *gruaig* 'hair' in the NEID far outnumber the total number of examples with the other words, as there are 186 tokens

of such structures in the dictionary, while there are only 33 examples with *fiacail* ‘tooth’, 18 examples with *ionga* ‘nail’, 12 examples with *súil* ‘eye’, 8 examples with *fuil* ‘blood’, 4 examples with *méar* ‘finger’, 3 examples with *scamhóg* ‘lung’, 2 with *lámh* ‘hand, arm’, and 1 with *ladhar* ‘toe’.

The above data was complemented by a search in the *Corpus of Contemporary Irish* for structures containing the above nouns plus six other nouns denoting body parts either with poss. pron. + *cuid* or just the bare possessive pronoun. The six additional nouns are: *cluas* ‘ear’, *cnámh* ‘bone’, *cos* ‘leg, foot’, *croí* ‘heart’, *gualainn* ‘shoulder’, and *glúin* ‘knee’. As pair nouns were also considered, the data for possessive pronoun + the numeral ‘two’ + body part is also provided for these. For the other nouns, this category is of course not applicable.

The results are summarised in Table 1; the data are presented in decreasing order in terms of the percentage of examples with *cuid* [tab 1].

Note that there are some limitations as to the extensiveness and the accuracy of the data for the following reasons:

1. In Irish Gaelic, many prepositions combine with the possessive pronouns which begin with a vowel. As much extra time would have been needed to search for all of these options in the corpus, these data were not taken into consideration (e.g., phrases such as *lena shúile* or *lena chuid súil* ‘with his eyes’, where *lena* is a combination of the preposition *le* ‘with’ and the possessive pronoun *a* ‘his’).
2. As for plural forms, Irish nouns fall into two categories: nouns with the so-called weak plural have the same form in the nom. sg. and the gen. pl.; and those with the so-called strong plural have the same form in the nom. pl. and the gen. pl. In this research, the first type of homonymy, namely when the nom. sg. is identical with the gen. pl. may cause problems. For example, *mo chluas* can either mean ‘my ear’ or ‘of my ears’, and only by looking at the context could these phrases be disambiguated. However, as some test analyses have confirmed that the great majority of these forms is nom. sg., such examples were not included in the count.
3. Another type of homonymy that exists is when the gen. sg. is identical with the nom. pl. (this generally occurs in nouns with weak plurals and some irregular nouns). This is the case, for example, with *súil* ‘eye’. Thus, *mo shúile* can either mean ‘my eyes’ or ‘of my eye’. Again, a test analysis was applied here, and according to the results, the nom. pl. forms by far outnumber the gen. sg. forms. The other word where such ambiguity arose was *glúin* ‘knee’. Thus, such forms were all counted among the nom. pl. forms.

Table 1 Nouns denoting body parts with a possessive pronoun and with or without *cuid*

Body part	Poss. Pron. + <i>cuid/chuid/gcuid</i> + body part	Poss. Pron. + Body Part (Nom. pl. if countable)	Poss. Pron. + 'two' + body part	Example in NEID with <i>cuid</i>
<i>gruaig</i> 'hair'	508 (= 69%)	232 (= 31%)	not applicable	YES
<i>fuil</i> 'blood'	99 (= 61%)	64* (= 39%)	not applicable	YES
<i>fiacail</i> 'tooth'	130 (= 61%)	84 (= 39%)	not applicable	YES
<i>ionga</i> 'nail'	27 (= 37%)	46 (= 63%)	not applicable	YES
<i>ladhar</i> 'toe'	4 (= 22%)	14 (= 78%)	not applicable	YES
<i>cnámh</i> 'bone'	9 (= 9%)	92 (= 91%)	not applicable	NO
<i>scamhóg</i> 'lung'	7 (= 9%)	74 (= 91%)	not applicable	YES
<i> lámh</i> 'hand, arm'	89 (= 6%)	1104 (= 73%)	312 (= 21%)	YES
<i>súil</i> 'eye'	194 (= 6%)	2769** (= 86%)	275 (= 8%)	YES
<i>cluas</i> 'ear'	20 (= 5%)	324 (= 85%)	38 (= 10%)	NO
<i>méar</i> 'finger'	17 (= 5%)	301 (= 95%)	not applicable	YES
<i>cos</i> 'leg, foot'	31 (= 2%)	1191 (= 87%)	147 (= 11%)	NO
<i>glúin</i> 'knee'	9 (= 2%)	415*** (= 86%)	57 (= 12%)	NO
<i>gualainn</i> 'shoulder'	7 (= 2%)	385 (= 96%)	8 (= 2%)	NO
<i>croí</i> 'heart'	2 (= 2%)	98 (= 98%)	not applicable	NO

* The forms with the pl. 3 poss. pron. were not taken into consideration at all, as *a bhfuil* 'their blood' is homonymous with *a bhfuil*, relative particle + dependent form of the present indicative of the substantive verb. A search for *a bhfuil* in the corpus gives more than 10,000 results, and each would have had to be checked to disambiguate this syntagm.

** Of these, 2333 are ambiguous, as they could be either nom. pl. or gen. sg. – see, however, point (3).

*** Of these, 315 are ambiguous, as they could be either nom. pl. or gen. sg. – see, however, point (3).

4. There exists dialectal variation in the nom. pl. + gen. pl. of nouns. So, although the gen. pl. form, *cluas* ‘of ears’, would be expected after *cuid*, structures with *cuid* + the officially recognised nom. pl. form *cluasa* ‘ears’ were also searched for.¹² As such forms were indeed found, they were included in the count, as this research was not focussed on variation in the gen. pl. form of individual nouns, but on variation between structures with and without *cuid*.

3.2.3 Analysis of the Data

The following conclusions can be drawn from the data presented above:

- a. The nine nouns denoting body parts that appear in the NEID in the *cuid*-type of construction are not the only ones which can take *cuid*, as in the corpus the other six nouns can also appear with it.
- b. The nouns in the dictionary appearing with *cuid* are not necessarily those that most frequently appear in the corpus in this type of structure. E.g. *cnámh* ‘bone’ appears with *cuid* in nine cases in the corpus, making up 9% of the examples, but the NEID has no examples of *cnámh* with *cuid*. The corpus provides comparable data for *scamhóg* ‘lung’, but here the NEID does give examples with *cuid*.
- c. The ratio between structures with possessive pronoun + *cuid* + body part and structures between pronoun + body part (i.e. without *cuid*) varies greatly from noun to noun. There are three nouns which appear with *cuid* more often than without it: *gruaig*, *fuil* and *fiacail*. The first two are uncountable nouns, as humans do not know how much hair and blood they actually have, and so here the quantity in question is uncertain. The third noun, *fiacail* ‘tooth’, is a countable one, but of all the countable body parts, teeth are the most numerous, moreover, their number is not stable during one’s lifetime, and two human beings will not necessarily have the same number of teeth. Generally, a person knows how many teeth they have; but they will not normally know how many another person has. Thus, the reason for the frequent use of *cuid* with this noun seems to be again the uncertain quantity. *Ionga* ‘nail’ and *ladhar* ‘toe’ also have a relatively high percentage of occurrences with *cuid* (37% and 22% respectively). In an ideal case, a person has 20 nails and 10 toes, which are fairly high

¹² The standard for written Irish has existed since 1958 (*An Caighdeán Oifigiúil*).

numbers as far as body parts go, and normally, it is not easy to see at first sight whether a person possesses all of these, so the element of uncertainty is also present here. It may then come as a surprise that *méar* ‘finger’ has a very low percentage of the *cuid*-type construction (5%): however, if we think along the lines of visibility, fingers are more conspicuous than toes, which means more certainty. At this point, it is interesting to compare these findings with those of Bayda (2018, 44). In the native-speaker corpus that he investigated, he found no examples of *fuil* ‘blood’ without *cuid*; and he had almost the same number of examples of *gruaig* ‘hair’ with and without *cuid*. However, it should also be noted that his total number of tokens was lower than in the present research (52 for *fuil* and 215 for *gruaig*). An important finding is that he was able to show dialectal differences in the use of *cuid* with *gruaig*.

- d. Pair nouns, that is nouns that denote things or persons of which there are only two, constitute a separate subcategory in many languages of the world. The same applies to Irish Gaelic, which, like all Indo-European languages, used to have a fully-fledged dual number.¹³ As stated earlier, of the category of body parts that come in pairs, Bayda examined five (*cluas* ‘ear’, *cos* ‘leg, foot’, *glúin* ‘knee’, *lámh* ‘hand, arm’ and *súil* ‘eye’) using a different corpus from the one used here, and presented only those results which contain the poss. pron. *mo* ‘my’. He only found 2 examples of *súil* ‘eye’ with *cuid*, and no *cuid*-type examples with the other nouns. (He had altogether 647 examples.) However, he also calls attention to the fact that “[*lámha*, for example, has different numbers if we consider not *mo*, but *a* ‘his’, *a* ‘her’, *a* ‘their’: 306 “- *cuid*” against 15 “+ *cuid*”. He notes that “plural nouns denoting objects coming in pairs (usually inalienable possessions like body parts) are hardly ever used with *cuid*” (2018, 45) and that “[t]he construction is not used with singular nouns or those denoting possessions coming in pairs as in these cases there is no AMOUNT in question, the number of persons or items is given by definition” (Bayda 2018, 52). It is all the more noteworthy then that the NEID does give example sentences with poss. pron. + *cuid* with two pair nouns: *lámh* ‘hand, arm’ and *súil* ‘eye’. They are the pair nouns that have the highest percentage of occurrences with *cuid* in the *Corpus for Contemporary Irish*: 6% in both cases (for *lámh*, this is not that much higher than Bayda’s data for the three poss. prons. in 3rd person

13 It is not within the scope of this essay to discuss the residue of the dual number in Modern Irish.

mentioned above), although this would probably be somewhat higher in the case of *súil* if the gen. sg. forms from the ambiguous examples with *mo shúile*, *do shúile*, etc. could be filtered out, see point 3 above. A search was also done for examples for a sixth pair noun denoting a body part, *gualainn* ‘shoulder’. With the exception of *cluas* ‘ear’, where 5% of the examples contain *cuid*, in the examples of the other three pair nouns (*cos* ‘leg, foot’, *glúin* ‘knee’ and *gualainn* ‘shoulder’) *cuid* only appears in about 2% of the cases.

- e. Nouns denoting two internal organs, *scamhóg* ‘lung’ and *croí* ‘heart’ have not been discussed yet. It is notable that 9% of the corpus examples with poss. pron. + *scamhóg* contain *cuid*, as opposed to only 2% of the examples with *croí*. Moreover, one of the examples is from a text written by a non-native speaker (see the discussion in Section 2; the source of this particular example was fairly easy to find, but note that further meticulous research would be needed to separate examples coming from native speakers from those coming from non-native speakers). The *Corpus of Contemporary Irish* seems to show that *scamhóg* is a lot more often used in the plural than in the singular, even when referring to one person (compare the frequently used English plural form, *lungs*). This may partly explain the relatively high number of examples of poss. pron. + *cuid* + gen. pl. (7 examples making up 9% of all cases) compared to the case of *croí* ‘heart’.

Finally, the following example from the corpus illustrates the various uses of nouns denoting body parts.^{14 15}

- (11) *Scrúdaíodh a cuid súl, a cuid fiacla,*
 examine.PST.PASS her part eye.GEN.PL her part tooth.GEN.PL
a cuid ingne, a cluasa, a dhá lámh. (#393709)
 her part nail.GEN.PL her ear.NOM.PL her two hand.NOM.SG
 ‘Her eyes, her teeth, her nails, her ears, her two hands were examined.’
 Lit.: ‘Were examined her part of eyes, her part of teeth, her part of nails, her ears, her two hands.’

Here we have the following structures: i.e. (i) possessive pronoun + *cuid* + gen. pl. of the body part; (ii) possessive pronoun + body part in the nom. pl.; (iii) numeral + body part in the nom. sg. It is interesting

¹⁴ The source of the corpus example is Mac Donncha (2010, 37).

¹⁵ The official standard recommends the form *lámh* /la:v/; however, in the Gaeltacht areas, *lámh* /la:v/ with palatal final consonant is frequently used after the numeral *dhá* (Ó Baoill, Ó Tuathail 1992, 113).

to note that there are three body parts mentioned of which humans have two: eyes, ears and hands, and each is used in a different type of phrase. As the data presented in Table 1 also show, all of these three constructions can be used with pair nouns, although their frequency varies: the possessive pronoun followed by the nom. pl. of the noun being the most frequent type.

3.3 Personal Numerals in a Partitive Structure (Type C)

3.3.1 Discussion of the Structure

The last structure to be discussed is a true partitive equivalent to English ‘two of us’, ‘three of you’, etc., containing personal numerals.

Personal numerals behave like nouns and are used for counting people, as in (12) and (13), with *gasúr* in (13) being the gen. pl. of *gasúr* ‘child’.

(12) *triúr*
three people/persons’

(13) *triúr* *gasúr*
three people child.GEN.PL
‘three children’ Lit.: ‘three people/persons of children’

The term ‘personal numeral’ for such words is used in Thurneysen’s *A Grammar of Old Irish* ([1946] 1980, 243). In Ó Dónaill (2010, 190) they are also referred to as ‘personal numerals’ (note that Acquaviva uses the term ‘collective’ numerals – 2008, 30; 165). They are different from cardinals; for example, when simply counting or when counting things or animals, the word *trí* ‘three’ would be used for ‘three’. In both eDIL and the FGB these personal numerals are categorised as nouns. The Modern Irish forms are the following:

duine ‘(one) person’
beirt ‘two people’ (earlier and now rarely used form: *dís*)
triúr ‘three people’
ceathrar ‘four people’
cúigear ‘five people’
seisear ‘six people’
seachtar ‘seven people’ (earlier and now rarely used form: *mórsheisear*)
ochtár ‘eight people’
naonúr ‘nine people’
deichniúr ‘ten people’
dháréag ‘twelve people’

Since in Irish Gaelic each noun has grammatical gender, the above-mentioned nouns/personal numerals also have grammatical gender and are (and were) declined according to the noun class they belong (or belonged) to. This means that in Modern Irish, all of them have a nom. sg., a gen. sg., a nom. pl. and a gen. pl. form, with the exception of *dháréag*, which only has nom. sg. and gen. sg.¹⁶ The FGB still has an entry for *dís*, '(Of persons) Two; pair, couple' (FGB s.v. "dís"); and the NEID also gives this as one of the equivalents of 'two', when referring to people (NEID s.v. "two").

In order to understand why the above words function as numerals from the semantic point of view but behave as nouns from the morphological and syntactic point of view, one would need to have a look at their etymology.¹⁷

The origin of the Old Irish (OIr.) personal numerals is discussed in Thurneysen ([1946] 1980, 243), where he suggests that with the exception of 'two' (which was *días* in OIr.),¹⁸ these are made up of the cardinals + the noun *fer* (Mod. Ir. *fear*, 'man'), thus OIr. *tríar* (Mod. Ir. *triúr*) in itself means 'three men' (= OIr. *trí* 'three' + *fer* 'man'), *ceathrar* (Mod. Ir. *ceathrar*) 'four men' (= OIr. *ceathair* 'four' + *fer* 'man'), etc. This explains why these personal numerals behave as nouns both from the morphological and syntactic point of view:

- a. as already mentioned above, they are declined like any other noun;
- b. they can be used on their own, e.g. *triúr* on its own means 'three people', *ceathrar* on its own means 'four people', etc.;
- c. if they are followed by another noun, then that noun has to be in the gen. pl., see ex. (13) above. According to Breatnach, nouns start to appear after the personal numerals only during the Middle Irish period (c. 900-c. 1200) (i.e. before that, these numerals could only be used on their own), and the noun had to be in the gen. pl. (Breatnach 1994, 262).

Kane (2015, 124) analyses these personal numerals as noun phrases, and convincingly argues that the fact that they can stand alone and are followed by the gen. pl. of the noun means that their second element, i.e. the reduced form of *fear*, is still considered to be the syntactic head of the noun phrase. (So, *cúigear* 'five people' consists of

¹⁶ This is probably because *dháréag* /'ʃa:r'e:g/ stands out from the above lexical items as it is actually the contracted form of *dhá fhear dhéag* /'ʃa:arj'e:g/, 'twelve men'; lit. 'two man teen', where it is the cardinal, and not the personal numeral that is used for 'two' (eDIL s.v. "deec").

¹⁷ Acquaviva classifies their usage as pronouns or determiners (2008, 165).

¹⁸ There were four differences in the personal numerals between Old Irish and Modern Irish, but these are not discussed here as they are not relevant for the research.

cúig ‘five’ and the reduced form of *fear* ‘man’, *fear* being the syntactic head of the noun phrase *cúigear*.)

It is also worth noting that these personal numerals are not exclusively used for referring to people; they can also denote things (see Thurneysen 1980, 244 and eDIL s.v. “tríar”); however, in this case they cannot be followed by a noun (FGB s.v. “tríúr”). Furthermore, the cardinals can also be used for counting people (see the entries for the numerals between 2 and 10 in the NEID), although language coursebooks and grammars generally teach the personal numerals to learners for this context.

From the semantic point of view, there seems to be a whole – part relationship expressed in some phrases in which the personal numerals are used, thus they can be considered true partitives. An example for one of these types can be seen in (13); and I would like to discuss another type below. This is the equivalent of English phrases such as ‘one of us’, ‘two of us’, ‘three of us’, i.e. ‘X persons of us’. The NEID provides two equivalents for such phrases: one with the 1st person plural prepositional pronoun form of the preposition *ag* ‘at’, and one with the same grammatical form of the preposition *de* ‘from’. FGB does name this type of usage as a partitive one under sense no. (4) in the entry for *ag* (FGB s.v. “ag”), and under sense no. (2 f) in the entry for *de* (FGB s.v. “de”).

- (14) *triúr* *againn*
three people at.1PL
‘three of us’

or

- (15) *triúr* *dínn*
three people from.1PL
‘three of us’

The same two structures can be used for ‘X of you’ and ‘X of them’ as well (the latter could also refer to things).

3.3.2 Presentation and Analysis of the Data

The NEID does not give information on the frequency of usage, so a search for these constructions was conducted in the *Corpus of Contemporary Irish*; the results are presented in [table 2].

Table 2 Corpus data for expressing ‘X of us’, ‘X of you’, ‘X of them’

Personal numeral	<i>againn</i> ‘at us’	<i>dínn</i> ‘from us’	<i>agaibh</i> ‘at you’ (pl.)	<i>díbh</i> ‘from you’ (pl.)	<i>acu</i> ‘at them’	<i>díobh</i> ‘from them’
<i>duine</i> ‘one person’	478 (94%)*	29 (6%)	71 (93%)	5 (7%)	2116 (83%)	437 (17%)
<i>beirt, dís</i> ‘two’ people’	447 (99.8%)	1 (0.2%)	109 (100%)	0 (0%)	2049 (98%)	44 (2%)
<i>triúr</i> ‘three people’	143 (100%)	0 (0%)	10 (100%)	0 (0%)	416 (96%)	18 (4%)
<i>ceathrar</i> ‘four people’	53 (100%)	0 (0%)	6 (86%)	1 (14%)	120 (92%)	10 (8%)
<i>cúigear</i> ‘five people’	36 (97%)	1 (3%)	0	0	92 (84%)	18 (16%)
<i>seisear</i> ‘six people’	29 (100%)	0 (0%)	3 (100%)	0 (0%)	32 (71%)	13 (29%)
<i>mórsheisear</i> ‘seven people’	2** (100%)	0	0	0	0	0
<i>seachtar</i> ‘seven people’	15 (100%)	0 (0%)	0	0	45 (86.5%)	7 (13.5%)
<i>ochtar</i> ‘eight people’	10 (100%)	0	0	0	44 (88%)	6 (12%)
<i>naonúr</i> ‘nine people’	1 (100%)	0	0	0	20 (80%)	5 (20%)
<i>deichniúr</i> ‘ten people’	5 (83%)	1 (17%)	0	0	44 (88%)	6 (12%)
<i>dháréag</i> ‘twelve people’	2 (67%)	1 (33%)	0	0	12 (92%)	1 (8%)
Total:	1221 (97%)	33 (3%)	199 (97%)	6 (3%)	4990 (90%)	565 (10%)

* The percentages were calculated by comparing the data for the following different pairs: *againn* – *dínn*, *agaibh* *díbh*, *acu* – *díobh*.

** These two examples come from the same passage from two different sources.

- a. The personal numeral *mórsheisear* (the earlier form for ‘seven people’) appears altogether 26 times in the corpus (but there are only two examples in the examined construction), although note that it is not listed in the NEID in the entry for ‘seven’. Also, only 16 examples were found in the corpus with the earlier form for ‘two people’, *dís*, as opposed to 2634 examples with *beirt* in the structure examined. The variation in these two numerals was not examined.
- b. There is an almost total domination of the construction with the preposition *ag*. Although there is some variation depending on the first and second elements, sometimes the number of examples is so low (e.g. in the case of ‘ten of us’, ‘twelve of us’ or ‘four of you’), that no meaningful conclusion can be drawn in such cases. However, when the data are totalled for each prepositional pronoun, then the dominance of the forms with *ag* can clearly be seen. It is also noteworthy that this prevalence is greater in the case of the structures ‘X of us’ and ‘X of you’ than in the case of ‘X of them’. More research would be needed to establish whether the variation depends on native speaker or non-native speaker usage, or dialect, or context, or a combination of these.

4 Conclusion

The aim of this study was to provide some insight into certain aspects of a much under-researched grammatical feature of Irish Gaelic: partitive and pseudo-partitive structures. The focus of this research was to study the variation that is present or is expected to be present in three such structures – A) and B) being pseudo-partitives, C) being a true partitive – in contemporary usage, and to give possible reasons for the variation if it was attested. Data from the *Corpus of Contemporary Irish* was retrieved and analysed and was checked against dictionary data.

The findings can be summarised as follows:

- a. Type A): The gen. sg. of nouns denoting a language after a quantifier (indicating the degree of knowledge) does not show variation in the *Corpus of Contemporary Irish*, in spite of the general scholarly consensus that the use of the gen. sg. of nouns in general is in decline. It has been suggested that as Irish grammars and dictionaries codify the use of the genitive here, this is probably why variation was not found in (educated) written Irish. Another possible explanation may have to do with the salience of the gen. sg. form of these nouns.

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- b. Type B): Detailed data for the variation between the structures possessive pronoun + *cuid* + body part AND possessive pronoun + body part were presented, and it was argued that the frequency of the use of *cuid* with body parts seems to depend on the certainty in the speakers' mind about the quantity/amount of the body part (which in turn depends on countability and visibility). It was also found that pair nouns can also appear with *cuid*.
 - c. Type C): Detailed data for the variation between the structures with two different prepositions corresponding to English 'one of us', 'two of us', 'one of you', 'two of you', etc., were presented from the *Corpus of Contemporary Irish*, which showed the overwhelming use of the construction with the preposition *ag* 'at' rather than with the preposition *de* 'from'. More research would be needed to establish the reasons behind this variation.

There are several possibilities for further research connected to all the three types discussed here. Based on these findings, the most obvious possibilities would be:

- a. Expansion on type A: Exploration of further structures expressing quantity and using other corpora as well (e.g. the *New Corpus for Ireland*) in order to compare the data from the different corpora;
- b. Expansion on type B: Further exploration of the use of *cuid* with nouns other than the ones denoting body parts; further exploration of the use of *cuid* with body parts using other corpora as well (e.g. the *New Corpus for Ireland*); examining the data in different text types;
- c. Expansion on type C: Further exploration of the use of personal numerals with nouns and with the prepositional pronominal forms of *ag* and *de*, using other corpora as well (e.g. the *New Corpus for Ireland*); examining the data in different text types.

This essay has shown that the rich variety of (pseudo-)partitive structures and meanings in Irish, and the existence of variation clearly deserve to be explored in more detail in the future.

Abbreviations

GEN	genitive
gen. pl.	genitive plural
gen. sg.	genitive singular
M	masculine
Mod. Ir.	Modern Irish
NEG	negative
NOM	nominative
nom. pl.	nominative plural
nom. sg.	nominative singular
Olr.	Old Irish
PASS	passive
PL	plural
poss. pron.	possessive pronoun
PRS	present
PST	past
SG	singular
SUBST	substantive verb

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**Partitive Constructions and Partitive Elements
Within and Across Language Borders in Europe**

edited by Elvira Glaser, Petra Sleeman,
Thomas Strobel, Anne Tamm

Possessive Partitive Strategies in Uralic

Evidence from Mari and Hungarian Quantifiers and Inflected Adpositions

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Abstract In this essay, we analyse how proper partitivity is expressed in Hungarian and Mari. Three strategies are used, one of which – marking on the superset via case or adpositions – is basically identical to what we find in well-studied languages. The other two strategies are possessive agreement with the superset by 1) the quantifier that represents the subset or 2) by the postposition that links the subset to the superset. This means that (at least) one of these entities bears a possessive suffix that indicates the number and person of the superset. We discuss how these strategies work in both languages, and what the structural differences are.

Keywords Proper partitives. Possessive agreement. Quantifiers. Postpositions. Loss of possessive suffixes.

Summary 1 Introduction. – 2 Cases and Adpositions (Postpositions) in Partitive Constructions in Uralic Languages. – 3 Possessive Agreement in Uralic Partitive Constructions: Subset Marking in Hungarian. – 4 Comparing the Possessive Strategies in Mari and Hungarian. – 5 Discussion. – 6 Conclusion.



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1 Introduction

The aim of this essay is to describe possessive partitive strategies of proper partitives used in two Uralic languages, Hungarian and Mari. Hereby we provide information of the elusive link between possession and separative in partitive constructions that has been attested in many languages of Europe, such as in the English ‘of’. While in English, the preposition ‘of’, originally a marker of separative relation between two entities, has developed to primarily mark possessive constructions, in Uralic, we see the opposite direction in grammaticalisation. Possessive (agreement) markers have become or are becoming partitive markers in Uralic.

The Uralic languages are spoken in Eastern Europe and in north-western Siberia. The diagram represents a traditional view of the structure of the family. Hungarian belongs to the Ugric and Mari to the Volgaic languages within the Finno-Ugric branch of the Uralic family.

Diagram 1 The traditional view of the structure of the Uralic family (based on Miestamo, Tamm and Wagner-Nagy 2015, 8)

URALIC

- SAMOYEDIC
- FINNO-UGRIC
 - UGRIC
 - FINNO-PERMIC
 - PERMIC
 - FINNO-VOLGAIC
 - VOLGAIC
 - FINNO-SAAMIC
 - SAAMIC
 - FINNIC

In the morphologically rich Uralic languages, it comes as no surprise that there are different strategies to express semantic proper partitivity morphologically. While the partitive structures of the Finnic languages have been studied earlier, as they involve a dedicated partitive

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case, elsewhere in the family, partitive structures can be formed by means of both case marking and possessive agreement. The possessive strategy has been regarded as one of the common characteristics shared by Uralic and Turkic languages (Fokos 1939, 17-18; 1961, 63-8; for recent research on Turkic see von Heusinger, Kornfilt 2017; Lyutikova 2023).

To discuss the semantics of the partitive constructions, we use the conceptual tools provided in Koptjevskaja-Tamm's semantic-typological work, such as 'part/amount of N (the whole)' relationship (Koptjevskaja-Tamm 2001) or in terms of Seržant (2021), the subset (the part/amount) and a superset (the whole) relation. Partitive constructions are divided into two major subclasses: proper partitives and pseudo-partitives. Pseudo-partitive constructions (e.g., a glass of water, a number of problems, a piece of cake), as compared to the proper partitives, do not have an antecedent in the discourse, their subset DP1 is limited to a restricted number of lexical nouns in the head of NP1. In pseudo-partitives, the superset is indefinite and interpreted as an existential nominal construction (Koptjevskaja-Tamm 2001; Falco, Zamparelli 2019; Seržant 2021).¹

To clarify how semantics is expressed in morphosyntax, we use Falco and Zamparelli (2019) as well as other approaches that regard proper partitives as structures that capture the semantic relationship between a subset and a superset. We use the term proper partitive throughout the essay for the sake of better understanding, though most of our examples are canonical partitives in the sense of Falco and Zamparelli (2019). Following Jackendoff (1968) and Selkirk (1977), Falco and Zamparelli (2019) argue that proper partitives are represented in two DPs (or other formal means that involve determiner phrases, such as noun phrases and quantifier phrases, e.g., De Hoop 1998; Martí-Girbau 2002; 2010; Cardinaletti, Giusti 2006; Sauerland, Yatsushiro 2017; von Heusinger, Kornfilt 2017, a.o.). DP1 stands for the subset and DP2 represents the superset. The structure in (1c) is adopted from Falco and Zamparelli (2019) and represents the superset, which is embedded in DP1, the subset. The two DPs are related via a preposition or case. The phrases 'ten of the girls' and 'ten of them' are illustrated in (1d) and (1e), respectively.

¹ See more on Uralic pseudo-partitives in the various chapters in Bakró-Nagy, Laakso, Skribnik 2022 or in comparison with proper partitives in Kubínyi, Tamm 2022. In Hungarian, pseudo-partitives do not have a complex structure. The subset precedes the superset (i).

(i) *egy pohár bor*
INDF glass[NOM] wine[NOM]
'a glass of wine' (Tamm 2014, 124)

- (1) [Context: Twenty students came to the party.]
- a. *Ten of the girls / ten girls of the freshmen went home very late.*
- b. *Ten of them went home very late.*
- c. [_{DP1} [_{NP1} [_{PP} [_{DP2} [_{NP2}]]]]]
- d. [_{DP1} ten [_{NP1} (e) [_{PP} of [_{DP2} the [_{NP2} girls]]]]]
- e. [_{DP1} ten [_{NP1} (e) [_{PP} of [_{DP2} them [_{NP2} (them)]]]]]
- f. [_{DP1} ten [_{NP1} girls [_{PP} of [_{DP2} the [_{NP2} freshmen]]]]]

The supersets in ('ten of the girls/ten girls of the freshmen') in (1a) and ('ten of them') in (1b) are related to the antecedent ('twenty students'). The superset can be a proper part of the antecedent, or a personal pronoun. As shown in (1d) and (1e), the head of NP1 ('girls') is silent (Cardinaletti, Giusti 2006), but can be overt as well, see (1f). However, in DP1, there must be an overt quantifier. The head of PP assigns case to DP2; see (1c), (1d), (1e), and (1f).

Our aim is to show how the partitive relation is marked via possessive agreement in Hungarian and Mari, see (1c). In typical Uralic languages, possessive agreement is a means to mark the number and person features of a possessor on the possessee via non-verbal agreement affixes, more specifically, suffixes. In Uralic, in partitive constructions, the locus of the possessive agreement can be the 'part', but it can also be the entity that relates the 'part' to the 'whole'. Therefore, we can say that in most of these languages, altogether three strategies are available to mark partitivity, one for each entity involved: the part, the whole, and the relating entity. In this essay, 'possessive agreement' means the partitive use of the possessive agreement suffixes to mark the number and person of the 'whole' on either the 'part' or on the link between the two, on the adposition.

The essay is organised as follows: in Section 2, we illustrate Finnish, Estonian, Hungarian and Mari. In these languages, the cases and postpositions that combine with the DP that denotes the superset mark the relation between the subset and the superset. In Section 3, we focus on the possessive strategies. We discuss the nature of possessive agreement on different syntactic categories and the morphological and syntactic properties of a special kind of quantifiers that can be marked for possessive agreement in Hungarian. In Section 4, we show that there are similarities but also crucial differences between Hungarian and Mari with respect to the use of the three strategies for encoding proper partitivity. Section 5 is a brief discussion and Section 6 is the conclusion.

2 Cases and Adpositions (Postpositions) in Partitive Constructions in Uralic Languages

In Uralic languages, one way of encoding the relationship between the subset and a superset is structurally identical with what can be observed in languages like English (2). This strategy involves marking the superset with case, for instance, elative, ablative, inessive, or adpositions, as illustrated in (3) to (6). Either the case phrase (KP) or the adpositional phrase (PP) is projected in these structures.²

(2) English

[Some students came to the party.]

Two of them / two of the girls / two girls of the freshmen left very early.

(3) Hungarian

a. *Megevett hármat az almá-ból*
 PREF.eat.PST.3SG three.ACC DEF apple[SG]-ELA
 /??hármat az alma **közül**.
 three.ACC DEF apple[NOM.SG] from
 ‘He ate three of the apples.’

b. [...] *Kettő a diákok közül*
 two[NOM] DEF student.PL[NOM] from
 /??kettő a diákok-**ból** hazakísért.
 two[NOM] DEF student.PL-ELA home_accompany.PST.3SG
 ‘[Ten students took the exam.] Two of the students accompanied me home.’

(4) Finnish

a. [...] *Kaksi hei-stä hylättiin.*
 two[NOM] they.PL-ELA reject.PASS.PST
 ‘[Ten students took the exam.] Two of them failed.’

b. *Kaksi hei-tä, 22-vuotias nainen ja*
 two[NOM] they.PL-PAR 22-year.old woman and
31-vuotias mies, jouduttiin viemään
 31-year.old man have_to.PASS.PST take.INF
ensiapuun Tampereen yliopistolliseen sairaalaan.
 first_aid.ILL Tampere.GEN university.ILL hospital.ILL
 ‘Two of them, a 22-year-old woman and a 31-year-old man, were forced to be taken to first aid at Tampere university hospital.’

² Where not otherwise indicated, the Hungarian data are based on the authors’ intuition.

In Hungarian, the distribution of the postposition *közül* ‘out of’ and the elative case in constructions with partitive semantics is primarily based on countability: *közül* ‘out of’ usually does not occur with mass nouns, while the elative marker does, as shown in (3a) and (3b) above.³

As to Finnish, both the partitive case and the elative case can be used to mark the partitive relation on DP2 (4). The choice between the two cases depends on multiple factors, especially the definite/indefinite reference of the superset; nonetheless, it can be also free (VISK § 592). The elative and, in some constructions, the partitive morphological case is used to mark proper partitivity on DP2 also in Estonian, another Finnic language (5a). Partitive or pseudo-partitive semantics do not match well with what are referred to as the morphological partitive or elative cases, and these terms are perhaps not well suited for describing the natural divide between the case phenomena. In one type of interrogative *wh*-clauses, the object argument may be either in the morphological partitive or elative case (without any semantic partitivity), as illustrated with the minimal pair (5b) and (5c). Also, semantic partitivity is often expressed by postpositional phrases, as in (5d) and (5e).

(5) Estonian

- a. [...] *Kaks nei-st sai(d) hea hinde.*
 two[NOM] they.PL-ELA get.PST.3PL good.ACC grade.ACC
 ‘[Ten students took the exam.] Two of them got a good grade.’
- b. *Miks/mis sa te-da kiusa-d?*
 why 2SG DEM-PAR bully-2SG
 ‘Why are you bullying him?’ (Pajusalu 2006, 331)
- c. *Mis sa ta-st kiusa-d?*
 what 2SG DEM-ELA bully-2SG
 ‘Don’t bully him.’ (Pajusalu 2006, 331)
- d. [...] *Kaks nende (tudengite) seast*
 two[NOM] DEM.PL.GEN student.PL.GEN from_among
sai(d) hea hinde.
 get.PST.3PL good.ACC grade.ACC
 ‘[Ten students took the exam.] Two of them / two of these students got a good grade.’

³ Words denoting crops are mass nouns in Hungarian. In sentence (3), *hármat az almából / ?? hármat az alma közül* can be interpreted as ‘three of the apples’. In Hungarian, neither the elative case nor the postposition is exclusively used in partitive constructions.

- e. *paati-de sea-st /hulga-st*
 boat-GEN.PL among-ELA amount-ELA
 ‘from among the boats’ (Tamm 2014, 117)

In Mari, the postposition *yyč* ‘from’ is used to mark partitivity on DP2 (6a). Also, inessive case on DP2 can be – or was, at least, earlier – used to indicate the partitive relation (6b).

(6) Mari

- a. *Kum eryy yyč koktyt-šy-m salđat-lan puem.*
 three son[NOM.SG] from two-3SG-ACC soldier-DAT give.PRS.1SG
 ‘I’ll send two sons out of the three to the army.’ (Bereczki 1990, 43)
- b. *Kum uškal-yšte ikty-žy-m užalem.*
 three cow[SG]-INE one-3SG-ACC sell.PRS.1SG
 ‘I will sell one of (the) three cows.’ (Bereczki 1990, 38)

To represent partitive constructions in Uralic, in (7a), we adopt a modified structure proposed by Falco and Zamparelli (2019, 11); see the example (1e), ‘ten of them’, which is repeated here for the sake of convenience as (7b).

- (7) a. $[_{DP1} \text{two} [_{QP1} (\text{two}) [_{NP1} (\text{students}) [_{KP/PP} \text{-PAR, -ELA, -INE/ out of, from, from among} [_{DP2} \text{them} [_{NP2} (\text{them})]]]]]]]$
 b. $[_{DP1} \text{ten} [_{NP1} (\text{students}) [_{PP} \text{of} [_{DP2} \text{them} [_{NP2} (\text{them})]]]]]]]$
 (Falco, Zamparelli 2019, 11)

The two DPs are related via a case or an adposition. ‘Them’ represents the superset, which is embedded in DP1, the subset (‘two (students)’). This is the reason for placing partitive/elative/inessive case marking (or any adposition) as the head of KP/PP embedded under NP1 (we put aside the issue of morphological marking of accusative on NP1 in the illustrated sentences (3a), (6a), and (6b)).

3 Possessive Agreement in Uralic Partitive Constructions: Subset Marking in Hungarian

Section 2 detailed what could be called ‘superset proper partitive marking’, since the marking of the partitive relationship involves the phrase that stands for the superset (‘the whole’). Now we introduce the details of what could be called ‘subset proper partitive marking’, which has enjoyed less attention in previous literature on partitivity. In superset but not subset marking, the relationship between the

subset and a superset is structurally marked in an identical way with what can be observed in languages like English. In the Uralic subset marking, which is the focus of this article, the relationship between DP1 and DP2 (i.e., between the subset and the superset) is encoded by possessive agreement suffixes. The possessive suffix attaches to the quantifier in DP1 that stands for the subset. Additionally, it can also attach to the head of the postpositional phrase containing DP2 that stands for the superset. In this section, we detail the quantifiers and in Section 4, the postposition.

Subset marking means, then, that there is an explicit morphological marker of number and person on the subset, which agrees with the superset. The subset is represented by a quantifier, such as a cardinal numeral, a ‘weak’ quantifier such as ‘much’ and ‘several’, or an indefinite pronoun such as ‘one’. The quantifier bears a possessive marker. Henceforth, we refer to these categories by the term ‘quantifier’.

Hungarian and Mari use the same possessive marking strategies to encode partitivity, but the structures may differ in several respects, as shown in Section 4 below. In this section, we focus on Hungarian, briefly discussing the syntactic categories that are involved in possessive agreement. We show that the different syntactic categories behave differently with respect to the possessive suffix. Then we focus on a subtype of the possessively marked partitive quantifiers of Hungarian. Finally, we discuss the agreement features marked with the possessive suffix on quantifiers.

3.1 Possessive Suffixes across Categories in Hungarian

In Hungarian (as, indeed, in most Uralic languages), possessive agreement suffixes can attach among others to possessive constructions, adpositions, and quantifiers in partitive constructions (8).⁴

(8) Hungarian

- a. Péter könyv-e
Peter[NOM] book-3SG
‘Peter’s book’

⁴ As most of the Uralic languages, Hungarian is a pro-drop language. Personal pronouns are not pronounced if they can be recovered via person and number agreement, as is evident from (8c) and (8g). In standard Hungarian, the 3rd plural pronominal possessor formally coincides with its singular counterpart, while in some substandard variants the difference is marked, as indicated in (8j).

- b. *Péter könyv
Péter[NOM] book
Intended to mean: 'Peter's book'
- c. a (mi) könyv-ünk
DEF we[NOM] book-1PL
'our book'
- d. *a mi könyv
DEF we[NOM] book[NOM]
Intended to mean: 'our book'
- e. Péter mögött
Peter[NOM] behind
'behind Péter'
- f. *Péter mögött-e
Peter[NOM] behind-3SG
Intended to mean: 'behind Péter'
- g. (ő) mögött-e
he[NOM] behind-3SG
'behind him'
- h. *ő mögött
he[NOM] behind
Intended to mean: 'behind him'
- i. kettő-jük
two-3PL
'two of them'
- j. *ő(k) kettő-jük
they[NOM] two-3PL
Intended to mean: 'two of them'
- k. *a fiúk kettő-jük
DEF boy.PL[NOM] two-3PL
Intended to mean: 'two of the boys'

In possessive constructions, the possessor can be overt or covert. The possessor is either a lexical NP or a pronoun. The suffix that reflects the number and person features of the possessor appears obligatorily on the possessee ((8a-b), (8c-d)). In adpositional constructions, the postposition cannot agree with a lexical NP, but it must agree with the

personal pronoun ((8e-f), (8g-h)). The quantifiers marked with the possessive suffix agree with the superset. However, the superset cannot be overtly present in the structure. Neither the personal pronoun nor the lexical DP2 can be overt ((8i-k), (9)).

(9) Hungarian

Meglátogat-ta *kettő-nk-et* / **mi* *kettő-nk-et*.
 PREF.visit-PST.3SG>3 two-1PL-ACC we[NOM] two-1PL-ACC
 ‘She visited two of us.’

3.2 Partitive Quantifiers: The Morphological Structure of the Possessively Marked Quantifiers Ending in *-ik* in Hungarian

In the previous subsection, we have already seen that numerals can be marked with the agreement suffix. In this subsection, we take a closer look at a morphologically complex subtype of the possessively marked quantifiers of Hungarian, which can be called *ik*-quantifiers as they end in what is called a derivational suffix *-ik* (É. Kiss 2018).

Examples of *ik*-quantifiers include *egyik* ‘one (of)’, *másik* ‘the other one’, *melyik* ‘which’, *valamelyik* ‘either, one, some’, *mindegyik* ‘each’, *bármelyik* ‘any’, *semelyik* ‘none’. This subtype has the following structure: the root is an indefinite – or alternatively an interrogative-relative – pronoun that is marked with the suffix *-ik*, followed by a possessive marker that has number and person features of the superset in DP2. Apart from quantifiers like ‘two’, ‘many’ etc., it is these pronoun-based *ik*-quantifiers that can always morphologically express the person and number of the superset under the conditions illustrated by examples (8i-k) and (9) above.

Furthermore, if a quantifier has both an *ik*-form and an *ik*-less form, only the *ik*-form can carry the possessive suffix associated with the superset. This could be illustrated by the difference between *egy-ik-ük-et* ‘one-*IK*-3PL-ACC’ versus **egy-ük-et* ‘one-3PL-ACC’ as in (10). Note that the segmentation of the form *-ik* is intentionally diachronic for the purposes of the present essay and, synchronically, it is not a productive inflectional category on quantifiers.

(10) Hungarian

[...] *Meglátogat-om* *egy-ik-ük-et* / **egy-ük-et*.
 PREF.visit.PRS-1SG>3 one-*IK*-3PL-ACC one-3PL-ACC
 ‘[Ten students came to the exam.] I will visit one of them.’

3.3 The Nature of the Suffix *-ik* in Hungarian (É. Kiss 2018)

É. Kiss (2018) argues that the *-ik* suffix is historically related to a possessive agreement marker, being an obsolete allomorph of the 3rd person plural possessive suffix *-uk/ük, -juk/jük* (e.g. *ház-uk* ‘their house’, *pénz-ük* ‘their money’, *macská-juk* ‘their cat’, *kecské-jük* ‘their goat’). Following Janda (2015), who also claims that possessive markers have a significant role in the organisation of the discourse, we agree that the entities they refer to have to be introduced in the preceding discourse. É. Kiss (2018) argues that in Modern Hungarian, the suffix *-ik* must be analysed as a specific-partitive derivational suffix. This is why *ik*-quantifiers cannot be interpreted without an antecedent in the discourse, unlike *ik*-less indefinite pronouns or the *ik*-less quantifier; see the difference between (11a) and (11b).⁵

(11) Hungarian

- a. *Meglátogatott valakit /valamilyen hallgatót a klubból.*
 PREF.visit.PST.3SG somebody.ACC some student.ACC DEF club.ELA
 ‘He visited somebody/ some student from the club.’
- b. **Meglátogatott valamely-ik hallgatót a klubból.*
 PREF.visit.PST.3SG some-ik student.ACC DEF club.ELA
 Intended to mean: ‘He visited a (certain) student from the club.’

The suffix (or the suffixed word) also triggers object agreement on the verb (É. Kiss 2018).⁶

(12) Hungarian

- a. *Meglátogat-**ok** / *Meglátogat-**om** valaki-t a klubból.*
 PREF.visit.PRS-1SG PREF.visit.PRS-1SG>3 somebody-ACC DEF club.ELA
 ‘I will visit somebody from the club.’
- b. *Meglátogat-**ok** / *Meglátogat-**om** valamilyen **hallgató-t**.*
 PREF.visit.PRS-1SG PREF.visit.PRS-1SG>3 some student-ACC
 ‘I will visit some student.’

⁵ The process described by É. Kiss (2018) seems to be a general tendency in Uralic languages (cf. Nikolaeva 2003; Gerland 2014; É. Kiss, Tánzos 2018).

⁶ In Hungarian, there are two verbal paradigms. Intransitive verbs and transitive verbs with indefinite objects are marked for subject agreement. Transitive verbs with definite objects have object agreement.

- c. *Meglátogat-om* / **Meglátogat-ok valamely-ik-et a klubból.*
 PREF.visit.PRS-1SG>3 PREF.visit.PRS-1SG someone-1K-ACC DEF club.ELA
 ‘I will visit someone (lit. a certain one) of them from the club.’
- d. *Meglátogat-om* / **Meglátogat-ok valamely-ik-et*
 PREF.visit.PRS-1SG>3 PREF.visit.PRS-1SG someone-1K-ACC
a hallgatók közül.
 DEF student.PL[NOM] from
 ‘I will visit someone (lit. a certain one) of the students.’
- e. *Meglátogat-om* / **Meglátogat-ok valamely-ik-ük-et.*
 PREF.visit.PRS-1SG>3 PREF.visit.PRS-1SG someone-1K-3PL-ACC
 ‘I will visit someone (lit. a certain one) of them.’

In (12a) and (12b), the objects *valakit* ‘somebody’ and *valamilyen hallgatót* ‘some student’ do not trigger object agreement, as they are indefinite. In (12c-d), the noun head in DP1 is elided, giving way to the accusative marker to attach to the *ik*-quantifier. In (12c)-(12e) the quantifiers are specific and trigger object agreement, though a specific reading of the DP does not automatically trigger object agreement.⁷ Object agreement is triggered by DPs with the overt definite article, possessive structures, and some pronouns.

Bartos (2000) argues that only full-fledged object DPs agree with the verb, while QPs and NPs do not trigger object agreement. As we have shown in (12c), (12d), and (12e), the *ik*-words agree with the verb. We assume that *ik*-words in QP1 move to the head DP1.

(13) Hungarian

- a. [_{QP} valaki-t [_{NP} (valaki-t)]] (cf. 12a)
 somebody-ACC somebody-ACC
- b. [_{QP} valamilyen [_{NP} hallgató-t]] (cf. 12b)
 some student.SG-ACC
- c. [_{DP} valamely-ik-et [_{QP} (valamely-ik-et [_{NP} (hallgató-t)]]]] (cf. 12c)
 someone-1K-ACC someone-1K-ACC student.SG-ACC

⁷ Not all partitive constructions trigger object agreement:

- (i) *Levizgáztat-ok* / **Levizgáztat-om mindenki-t a diákok közül.*
 PREF.examine-PRS.1SG / PREF.examine.PRS.1SG>3 everybody-ACC DEF student.PL[NOM] from
 ‘I will examine all of the students.’

- | | | | | |
|----|--|---|--|-----------|
| d. | [_{DP1} valamily-ik-et
someone-1K-ACC | [_{QP1} (valamily-ik-et)
someone-1K-ACC | [_{NP1} (hallgatót)
student.SG-ACC | |
| | [_{PP} közül
out.of | [_{DP2} a
DEF | [_{NP2} hallgató-k]]]]
student-PL[NOM] | (cf. 12d) |
| e. | [_{DP1} valamily-ik-ük-et
someone-1K-3PL-ACC | [_{QP} (valamily-ik-ük-et)
someone-1K-3PL-ACC | [_{NP1} (hallgató-t)
student.SG-ACC | (cf. 12e) |

The reason for the movement of the *ik*-quantifiers to DP1 is to check the specificity feature and trigger object agreement, see the contrast between (13a-b) and (13c-e). *Ik*-constructions always agree with the verb, as in (12c), (12d), and (12e), represented in (13c), (13d), and (13e). *Ik*-quantifiers can also occur in quantitative constructions (14b).⁸

(14) Hungarian

[*A barátaim meglátogattak Londonban.*]

‘My friends visited me in London.’

- | | | | | |
|----|--|--|-------------------------------------|--------------------|
| a. | *Valamilyen | <i>lányt</i> | <i>elvisz-ek</i> | <i>vacsorázni.</i> |
| | some | girl.ACC | PREF.take.PRS-1SG | dine.INF |
| | ‘I will take some girl out for dinner.’ | | | |
| b. | <i>Valamily-ik</i> | <i>lányt</i> | <i>elvisz-em</i> | <i>vacsorázni.</i> |
| | some-1K | girl.ACC | PREF.take.PRS-1SG >3 | dine.INF |
| | ‘I will take some (lit. a certain) girl out for dinner.’ | | | |
| c. | [_{DP} valamily-ik
some-1K | [_{QP} (valamily-ik)
some-1K | [_{NP} lányt]]
girl.ACC | |
| d. | [_{DP} valamily-ik
some-1K | [_{NP} lányt]]
girl.ACC | | |

⁸ Jackendoff (1977) argues that partitive constructions contain 2 NPs, while in quantitative constructions there is only one NP, see the contrast between (ia) and (ib), see also Martí-Girbau 2002.

- (i) a. Each boy visited some friends; quantitative
b. Each of the boys visited some friend; partitive

In (ia), the subject is a quantised NP, or to use an up-to-date term, a QP, which is specific, but it is not partitive, but quantitative, see also the Hungarian examples (12a-c) versus (12d-e) represented in (13a-c) versus (13d-e).

Ik-quantifiers are interpreted as specific both in quantitative constructions and in partitive constructions as opposed to existential quantifiers, see the contrast between (14a) and (14b). They must have an antecedent in the discourse both in partitive and quantitative constructions. *Ik*-quantifiers trigger object agreement also in quantitative constructions, see (14b). There is one major difference that can be attested in the behaviour of *ik*-quantifiers in quantitative and partitive constructions. In partitive constructions, *ik*-quantifiers can be marked with the possessive suffix, as in (12e) and (13e), while this strategy is not available in quantitative constructions (15).

(15) Hungarian

*[...] *Valamely-ik-ük* lányt elviszem vacsorázni.
some-*ik*-3PL girl.ACC PREF.take.PRS.1SG>3 dine.INF
‘[My friends visited me in London.]’ Intended to mean: ‘I will take some (lit. a certain) girl out for dinner.’

In quantitative constructions, there is no recoverable superset for the *ik*-quantifier, so it cannot exhibit the person and number features of any superset. It cannot be marked for the person and number of the antecedent either, as in (15).

3.4 Number and Person Features of the Superset Marked on the Subset

In Section 3.1, we discussed the nature of the possessive suffix on different syntactic categories in Hungarian. Now we take a glance at the number and person features that Hungarian encodes in quantifiers.

In proper partitive phrases, the number of the possessive suffix is always plural, as the understood superset is, by definition, plural. The person encoded by the marker is first, second, or third. The whole possessive agreement paradigm in Hungarian subset marking is illustrated in (16). We disregard free allomorphic variation of the suffixes.

(16) which of DP2

- a. *mely-ik-ünk*
which-*ik*-1PL
‘which of us’
- b. *mely-ik-etek*
which-*ik*-2PL
‘which of you’
- c. *mely-ik-ük*
which-*ik*-3PL
‘which of them’

While, as a result, reference to the superset is always morphologically plural, the antecedent is not necessarily morphologically plural, see (17).

(17) Hungarian

[*Minden hallgató eljött a bulira.*]
every student.SG[NOM] PREF.COME.PST.3SG DEF party.SUBL
'Every student came to the party.'

a. *Ők nagyon kedvesek voltak.*
she-PL[NOM] very nice-PL be.PST-3PL
'They were very nice.'

b. *Egy-ik-ük korán elment.*
one-1K-3PL[NOM] early PREF.go.PST.3SG
'One of them left early.'

In (17), the antecedent *minden hallgató* is in the singular, but the personal pronoun *ők* 'they' in (17a) and the quantifier *egyikük* 'one of them' in (17b) is marked for plural. We must assume that the person and number marker on the quantifier comes from the superset, a silent pronoun in the superset DP2, not from the antecedent (17).

4 Comparing the Possessive Strategies in Mari and Hungarian

In Mari and Hungarian, the subset and the superset can be linked via a spatial case or a postposition meaning 'from (among)'. Both languages use also possessive marking with the number and person features of the superset to encode the superset-subset relation via the possessive suffix. In both languages, the locus of the marking can also be the postposition linking the two sets to each other, not only the subset (the quantifier). Yet, there are crucial differences between Hungarian and Mari in the use of these strategies. In what follows, we present the data about the differences.

4.1 Mari

4.1.1 Superset Marking Via a Case or a Postposition

In Mari, the superset can be overt; see example (6) in Section 2 above and example (18) here below; (6b) is repeated here as (18b). The subset and the superset can be linked either by means of the postposition (18a) or the inessive case (18b). In (18a), *student* [student.[NOM.SG]] ‘students’ is the superset, which is linked to *kokyt-šo* [two-3SG] ‘two’, the subset, via the postposition *gyč* ‘from among’. In (18b), *ikty-žy-m* [one-3SG-ACC] ‘one’ is the subset. It is related to the superset via the inessive case suffix *-yšte* in *kum uškal-yšte* [three cow-INE] ‘of three cows’.

(18) Mari

- a. [...] *Student gyč kokyt-šo provalitl-en.*
student[NOM.SG] from two-3SG[NOM] fail-PST2.3SG
‘Two from among the students failed.’ (Elena Vedernikova, pers. comm.)
- b. [...] *Kum uškal-yšte ikty-žy-m užal-em.*
three COW-INE[SG] one-3SG-ACC sell-PRS.1SG
‘I will sell one from among (the) three cows.’ (Bereczki 1990, 38)

4.1.2 Possessive Marking on the Quantifier

In Mari, the possessive suffix can attach to the quantifiers, but its form is invariantly in the 3rd person and singular, see (18) and (19). The superset is plural, so one might expect plural agreement on the quantifier in (19a), but the quantifier ‘two’ is ungrammatical with the 3rd person plural marking. At the same time, example (19b) demonstrates that the 1st person plural superset is grammatical with the 3rd person singular marking instead.

(19) Mari

- a. [...] **Kokyty-št-lan kugu kol verešt-yn.*
two-3PL-DAT large fish[NOM] fall_prey-PST2.3SG
‘[Ten men went fishing.] Two from among them caught large fish.’
(Elena Vedernikova, pers. comm.)
- b. [...] *Kokyt-šo provalitl-en-na.*
two-3SG[NOM] fail-PST2-1PL
‘[We took the exam.] Two from among us failed.’
(Elena Vedernikova, pers. comm.)

As can be seen from the above data, the 3rd person singular possessive suffix does not reflect the number and person features of the superset. The plural agreement *kokyty-št-lan* [two-3PL-DAT] ‘two of them’ is not grammatical in (19a), despite the plurality of the superset. The 3rd person agreement is grammatical in (19b), despite the 1st person feature of the superset (the suffix *-na* in *provalitl-en-na*). The quantifier *kokyt-šo* [two-3SG] ‘two’ (or ‘the two of them’) can be related both to the third and the non-third person plural supersets. Given the agreement data in (18) and (19), we regard the 3rd person singular suffix as the default agreement marker that is bleached in its meaning.

4.1.3 Possessive Marking on the Postposition

Postpositions can agree with the DPs they subcategorise for also in Mari.⁹ In partitive constructions, the postposition can agree with DP2 (the superset), but the agreement is optional. There is a contrast between the postpositional phrases *nunyn koklašty-št* [they.GEN among-3PL] ‘of them’, where the postposition bears the number-person features of DP2 it subcategorises for, and *nunyn koklašte* [they.GEN among] ‘of them’, where there are no agreement features on the postposition; compare (20a) and (20b), respectively.

(20) Mari

- a. *Nunyn koklašty-št kokyt-šo dene kutyrenam.*
 they.GEN among-3PL two-3SG[NOM] with speak.PST2.1SG
 ‘I spoke with two of them.’ (Elena Vedernikova, pers. comm.)
- b. *Nunyn koklašte kokyt-šo dene kutyrenam.*
 they.GEN among two-3SG[NOM] with speak.PST2.1SG
 ‘I spoke with two of them.’ (Elena Vedernikova, pers. comm.)

In Mari, we show a relevant difference between the marking strategy on the quantifier and the postposition. While the form of the possessive marker on the quantifier is a default person-number suffix, as shown in Section 4.1.2, the form of the person-number marker on the postposition must reflect the person-number features of the superset. The genitive pronoun *nunyn* [they.GEN] ‘their’ is in the 3rd person and the plural number in (20). The suffix on the postposition *koklašty-št* [among-3PL] ‘of them’ is also in the 3rd person but in the plural

⁹ Individual postpositions may behave differently in this respect. This phenomenon is not considered here. For more details see Riese, Bradley, Yefremova (2022, 154 ff).

number, unlike the suffix used on quantifiers; compare the grammatical form of the quantifier *kokyt* ‘two’ with the singular ending in examples (20a-b) and (18a) to its ungrammatical counterpart with the plural suffix in (19a).

In sum, quantifiers but not postpositions in Mari are always marked for the 3rd person singular, so Mari quantifiers have a bleached possessive partitive marker, similar to the Hungarian *-ik*. Mari postpositions have agreement. The 3rd person singular suffix on Mari quantifiers can be considered a default possessive agreement marker or a semantically bleached suffix that has gained the function of marking proper partitivity, which we conclude based on the sentences (18) to (20). Postpositions, on the other hand, can optionally have the number and the person suffix, whose values are identical with the person and number features of the superset. The superset can overtly cooccur with the agreement marked postposition and the quantifier.

4.2 Hungarian

4.2.1 Superset Marking Via a Case or a Postposition

In Hungarian, the superset and the subset can be related with either a case or a postposition, see example (3) in Section 2, repeated here as (21a), and (21b).

(21) Hungarian

- a. *Megevett hármat az almá-ból*
 PREF.eat.PST.3SG three.ACC DEF apple[SG]-ELA
 /?? *hármat az alma közül.*
 three.ACC DEF apple[NOM.SG] from
 ‘He ate three of the apples.’
- b. [...] *Kettő a diákok közül*
 two[NOM] DEF student.PL[NOM] from
 /?? *kettő a diákok-ból hazakísért.*
 two[NOM] DEF student.PL-ELA home_accompany.PST.3SG
 ‘[Ten students took the exam.] Two of the students accompanied me home.’

Either the relative case links the subset to the superset or the postposition *közül* ‘from’ is used (21).

4.2.2 Possessive Marking on the Postposition

If the superset is a personal pronoun, as in examples (8e-h) in Section 3.1, the Hungarian postpositions must be marked for the number and person suffix associated with the number and person features of the superset. Conversely, postpositions cannot be marked for the superset when it is a lexical NP. The contrast between pronominal and lexical NPs is illustrated by (22a) and the ill-formed (22b) as compared to the lexical NPs in (22c-d). In (22a), the superset is in the 1st person plural and the suffix on the postposition reflects the same features. The superset, the pronoun itself (*mi* ‘we’), is optionally overt. Example (22b) illustrates the lack of agreement between the 1st person plural superset and the postposition; therefore, the structure is ill-formed. In (22c-d), the superset is a lexical expression (‘the freshmen’), so agreement by the postposition is not grammatical. Thus, (22c) is well-formed, while (22d) is not.

(22) Hungarian

- a. [...] *Péter beszélt az egyikkel (mi) közül-ünk.*
 Peter[NOM] speak.PST.3SG DEF one.INST we[NOM] from-1PL
 ‘Peter spoke with one from among us.’
- b. [...] **Péter beszélt az egyikkel (mi) közül.*
 Peter[NOM] speak.PST.3SG DEF one.INST we[NOM] from
 Intended to mean: ‘Peter spoke with one from among us.’
- c. [...] *Péter beszélt az egyikkel az elsőévesek közül.*
 Peter[NOM] speak.PST.3SG DEF one.INST DEF freshman.PL[NOM] from
 ‘Peter spoke with one from among the freshmen.’
- d. [...] **Péter beszélt az egyikkel*
 Peter[NOM] speak.PST.3SG DEF one.INST
az elsőévesek közül-ük.
 DEF freshman.PL[NOM] from-3PL
 Intended to mean: ‘Peter spoke with one from among the freshmen.’

4.2.3 Possessive Marking on the Quantifier

The quantifier must be marked for the number and person features of the superset in a structure without a superset DP2 or an adposition. In this structure, the identity (person) of the superset can be recovered via the agreement on the quantifier (23).

(23) Hungarian

- a. [...] (Az) *egyik-ük-**kel*** *beszéltem.*
DEF one-3PL-INST speak.PST.1SG
'I spoke with one from among them.'
- b. [...] (Az) *egyik-**ünk*** *megebukott.*
DEF one-1PL[NOM] PREF.fail.PST.3SG
'One from among us failed.'

The three strategies to mark the relationship are mutually excluded. See their distribution in the well-formed examples in (21), (22a), (22c), and (23), on the one hand, and the ill-formed variants in (24) below, on the other.

(24) Hungarian

- a. [...] *(Az) *egy-ik-**ük*** *a fiúk közül* *eljött.*
DEF one-1K-3PL[NOM] DEF boy.PL[NOM] from PREF.come.PST.3SG
'One from among the boys came.'
- b. [...] *(Az) *egy-ik-**ük*** *közül-**ük*** *eljött.*
DEF one-1K-3PL[NOM] from-3PL PREF.come.PST.3SG
'One from among them came.'
- c. [...] *(Az) *egy-ik* *a fiúk közül-**ük*** *eljött.*
DEF one-1K[NOM] DEF boy.PL[NOM] from-3PL PREF.come.PST.3SG
'One from among the boys came.'

The sentences in (24) are ill-formed, because more than one of the three strategies are employed in them. In (24a), the superset is an overt lexical DP, embedded in a PP, and then the quantifier cannot be marked for the number-person features of the superset. In sentence (24b), the suffix is simultaneously attached to the quantifier and to the postposition: the result is ungrammatical. In sentence (24c), the superset is an overt lexical DP ('the boys'), and the postposition cannot carry the number-person reference to it in that case.

In Hungarian, the superset is always recoverable in the proper partitive constructions, but there is no redundancy in the structure: the superset can be referred to only once in the structure.

4.3 Differences between Mari and Hungarian Proper Partitive Constructions

There are four differences between the two languages. Firstly, in Mari, the quantifier has a default number-person marker, that is, the possessive suffix is always in 3rd person singular. In Hungarian, the quantifier always carries the number-person features of the superset, if these agreement features cannot be recovered on either the postposition or in the overt superset (DP2).

Secondly, in Mari, the agreement suffix optionally attaches to the postposition, and if so, it must exhibit the real values of the agreement features of the superset. In Hungarian, once there is no overt lexical nominal phrase in the superset DP2, the postposition is obligatorily marked for the agreement features of the superset.

Thirdly, in Mari, the three strategies can be applied simultaneously. On the other hand, in Hungarian, these strategies are mutually excluded, but one of the three strategies must be applied in proper partitive constructions.¹⁰

Lastly, the major difference is that in Hungarian, the superset in proper partitive constructions is always recoverable, irrespective of whether the superset-DP is overt. In Mari, if the quantifier is the only overt element in the partitive constructions, then the interpretation is always discourse-based.

5 Discussion

Our article has shown new data on partitive (part-whole, subset-superset) relationships from Uralic. Based on Mari, we can conclude that a default possessive agreement marker has developed or is developing in a marker of partitivity, just as Hungarian has developed in its history. Possessive (agreement) markers have become or are becoming partitive markers in Uralic.

The discussion has contributed to the understanding of the relationship between possessive- and separative-based partitive structures. In the better described languages, such as in English, the preposition ‘of’, originally a marker of separative relation between two

¹⁰ In covert partitive constructions, by contrast, only the subset is overtly present in the structure and the construction is interpreted on the basis of the antecedent (Falco, Zamparelli 2019), as in the Hungarian example (i).

(i) Hungarian

[Négy	fiú	jött	vizsgázn.]	Három	megbukott.
four	boy[NOM.SG]	come.PST.3SG	take_exam.INF	three[NOM]	PREF.fail.PST.3SG

‘Four boys came to take the exam.’ ‘Three failed.’

entities, has developed to primarily mark possessivity (Heine 1997, 145-6). The Romance series of prepositions with *de* and the German *von* are also ablative or source structures that have grammaticalised as possessives (Heine 1997, 145-6).

In Uralic, we see the opposite direction in grammaticalisation: from possessives to partitives. One important difference between the partitive marking derived from possessive agreement is the locus of the morpheme in terms of the phrase it attaches to. While the English preposition combines in grammar with the superset ('ten of **the girls**'), the Uralic-type possessive partitive marker combines with the subset instead ('**ten** of the girls'). The Uralic possessive-based partitive marker typically links specific supersets and emerges in proper partitive constructions only. The English separative-based possessive 'of' is not restricted to proper partitives and specific supersets emerging in proper partitives (as in 'the youngest **of** my children'), but it can also be used in pseudo-partitives ('a cup **of** tea').

While we have established that the possessive-based partitive marker never appears in pseudo-partitive constructions in Uralic languages that we studied in more detail, the separative-based marker is not restricted to proper or pseudo-partitive constructions. Therefore, some proper partitive constructions have different partitive markers on supersets and subsets simultaneously; consider Hungarian: *egyik a gyerekeim közü*l 'one [proper partitive marker on the subset] from among my children [partitive postposition of the superset]'.

The Finnic languages that have a dedicated morphological marker, the partitive case, are like English. The separative-based marker is not restricted to either proper or pseudo-partitive constructions. The Estonian *osa Euroopast* [part Europe.ELA] and *osa Euroopat* [part Europe.PAR] 'part of Europe' illustrate proper partitives with specific supersets. They have partitive or relative marking on the superset, while the pseudo-partitives have partitive marking on the superset: *tass teed* [cup tea.PAR] 'a cup of tea'.

Additionally, the possessive marker combines with the adposition, as in *belől-e* [from-3SG] 'out of it' (Hungarian); in other words, one could imagine a structure where the English preposition 'of' or the French preposition *de* has a suffix. This is exactly the strategy that also Arabic and Celtic languages have for partitivity; see Pósdör, this volume, for Celtic, and Gensler (1993) for Celtic and Arabic. The Germanic languages such as German and Dutch display a possessive strategy like the Uralic one in their pronominal adverbs, such as the Dutch partitive *ervan* 'of it' or its emphatic counterpart *daarvan* 'of it' and the German equivalent *davon* 'of it'. The main difference between the Uralic and the Germanic combinations is in the explicit person and number features in Uralic: the Germanic partitive combinations are restricted to third person. Within this wider picture of possessive-agreement-based partitive markers, the proper partitive structures of Uralic languages are

syntactically far from uniform. In Mari, the three strategies can be applied simultaneously. In Hungarian, these strategies are mutually excluded, and only one of the three strategies must be applied in proper partitive constructions. The major difference is that in Hungarian, the superset in proper partitive constructions is always recoverable, irrespective of whether the superset-DP is an overt lexical DP, while in Mari, if only the quantifier is overt, the interpretation of the partitive constructions is always discourse-based.

6 Conclusion

The major contribution of this essay is clarifying the limits of variation in one of the special and frequently emerging characteristics of Uralic (also other Eurasian languages, such as Turkic), partitive-related possessive marking on quantifiers and partitive marking on adpositions. We have discussed some parallels with other European languages. We have demonstrated two possessive-based partitive strategies and a non-possessive partitive strategy in Mari and Hungarian, and we have explained the structure of the variation between these two languages.

Abbreviations and Notations

1	first person
2	second person
3	third person
ACC	accusative
DAT	dative
DEF	definite article
DEM	demonstrative pronoun
ELA	elative
GEN	genitive
IK	the formative <i>-ik</i>
ILL	illative
INDF	indefinite article
INE	inessive
INF	infinitive
INSTR	instrumental
NOM	nominative
PAR	partitive
PASS	passive
PL	plural
PREF	prefix
PRS	present
PST	past
PST2	second past
SG	singular
SUBL	sublative
1SG>3	verbal agreement indicating the subject (1st person singular) and the object (3rd person)
1SG>PL	non-verbal agreement indicating the possessor (1st person singular) and the number of the possessee (plural)

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**Partitive Constructions and Partitive Elements
Within and Across Language Borders in Europe**

edited by Elvira Glaser, Petra Sleeman,
Thomas Strobel, Anne Tamm

The Partitive Pronoun ER in Two National Varieties of Standard Dutch

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Abstract The Dutch partitive pronoun ER in general occurs in combination with an elliptical noun phrase in object position. According to the Dutch Reference Grammar, partitive ER in general occurs with a quantifier in this case. The Dutch Reference Grammar observes that there is natiolectal variation with respect to the use of partitive ER, focusing on the national varieties of Dutch used in the Netherlands and in Belgium. In this essay, the acceptance of the use or omission of ER in different types of NPs by native speakers of the Netherlandic and the Belgian variety of Dutch is compared. It is shown that differences between the varieties go beyond those described by the Dutch Reference Grammar.

Keywords Partitive pronoun. ER. Netherlandic Dutch. Belgian Dutch. Standard language.

Summary 1 Introduction. – 2 National Varieties of Standard Dutch. – 2.1 A Pluricentric Vision. – 2.2 The Partitive Pronoun ER in the Dutch Reference Grammar. – 3 Previous Research on the Use of Partitive ER in Various Contexts. – 3.1 Berends (2019). – 3.2 Sleeman and Ihsane (2017; 2020). – 3.3 Cornips and Sleeman (2024). – 4 Methodology. – 4.1 Test Materials. – 4.2 Participants and Procedure. – 4.3 Analysis. – 5 Results. – 6 Discussion. – 7 Conclusion.



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1 Introduction

Partitive pronouns refer to an antecedent that has previously been mentioned in the discourse. Typically, they occur in combination with an elliptical complex noun phrase modified by a cardinal numeral or weak quantifier in an indefinite NP in object position (Berends 2019). This is illustrated by the Italian example (1):

- (1) *NE ho tre.* (Italian)
PART.CL have.PRS.1SG three
'I have three (of them).'

Giusti and Sleeman (2021) observe that in (1) *ne* can also appear without the quantifier, resuming a determinerless indefinite expression, often called a 'bare noun'. This is illustrated in (2):¹

- (2) *Gatti? Sì, NE ho.* (Italian)
cats yes PART.CL have.PRS.1SG
'Cats? Yes, I have cats.'

Other Romance languages that make use of a partitive pronoun are French and Catalan. A Germanic language that has a partitive pronoun is Dutch. Whereas in Romance the partitive pronoun is a clitic, in Dutch it is a weak pronoun, the pronoun ER. Although in the Dutch tradition, ER is often called a quantitative pronoun (Blom 1977; Benis 1986), it will be called a partitive pronoun in this essay, as it is called for the Romance languages. Giusti and Sleeman (2021) observe that in Netherlandic standard Dutch, the weak pronoun ER requires the presence of the quantifier, as illustrated in (3):

- (3) *Katten? Ik heb ER *(drie).* (Netherlandic Dutch)
cats I have PART.WK three
'Cats? I have three.'

De Schutter (1992) and Sleeman (1998) state that in standard Belgian Dutch, however, the use of a quantifier is not required, as illustrated by (4):

I am grateful to Anne Tamm and her student Kathleen Dobbelaere for distributing the test. Many thanks go to the participants for filling in the test. I also thank the reviewers for their valuable remarks on an earlier version of this text.

1 In the English translation the antecedent *cats* is repeated. English does not have a partitive pronoun. In (2), it is not possible to use an empty noun, as in the English translation in (1), in which the elliptical noun phrase contains a quantifier. To avoid the repetition of the noun, a definite pronoun could be used: "Yes, I have them".

Context: [flowers]

- (4) *Hij brengt ER dikwijls mee voor haar.* (Belgian Dutch)
 he brings PART.WK often with for her
 'He often brings her flowers.'

Corver and van Koppen (2018) observe that (in Netherlandic standard Dutch) the partitive pronoun ER

typically occurs in clausal environments featuring a(n indefinite) direct object noun phrase whose nominal head is empty, possibly as the result of movement of the partitive pronoun, and which is introduced by a cardinal or indefinite quantifier

as in (3). However, Sleeman (2023) shows that in a Grammaticality Judgment Task, in more than 80% of the cases the 15 Netherlandic and 15 Belgian Dutch participants accepted the use of the partitive pronoun in coordinated Dutch sentences such as (5), in which the elliptical noun phrase has been analysed as a quantified adverbial noun phrase in the literature (Barbiers 2017 for Dutch; Belletti, Rizzi 1981 for Italian), modifying an intransitive verb like 'remain', 'sleep' or 'swim', as in (5):

- (5) [*Gisteren heb ik één kilometer gezwommen*] *en*
 yesterday have I one kilometre swum and
vandaag heb ik ER twee gezommen.
 today have I PART.WK two swum
 'Yesterday I have swum one kilometre and today I have swum two.'

Sleeman (2023, fn. 6) also reports the judgments of the same Netherlandic and Belgian Dutch participants on the use of the partitive pronoun ER in Dutch sentences with the intransitive verbs 'weigh' and 'cost' and an elliptical measure noun phrase:

- (6) *Katrien weegt 57 kilo en Anneke weegt ER 59.*
 Katrien weighs 57 kilograms and Anneke weighs PART.WK 59
 'Katrien weighs 57 kilograms and Anneke weighs 59 kilograms.'
- (7) *De reis door Italië heeft 2,000 euro gekost en*
 the trip through Italy has 2,000 euros cost and
de reis door Griekenland heeft ER 1,000 gekost.
 the trip through Greece has PART.WK 1,000 cost
 'The trip through Italy cost 2000 euros and the trip through Greece 1,000.'

With these two verbs the judgments of the Netherlandic and Belgian Dutch participants diverge importantly. Sentence (6) with the verb ‘weigh’ was accepted by 47% of the Netherlandic Dutch participants and by 93% of the Belgian Dutch participants. Sentence (7) with the verb ‘cost’ was accepted by 27% of the Netherlandic Dutch participants and by 80% of the Belgian Dutch participants.

Besides sentences with intransitive verbs such as (5), (6) and (7), the Grammaticality Judgment Task that was submitted to the 15 native speakers of Netherlandic Dutch and the 15 native speakers of Belgian Dutch contained several other contexts in which the partitive pronoun occurred or was left out. In this essay the complete set of contexts with and without ER that were submitted to the Netherlandic and Belgian Dutch participants will be presented. The goal of the essay is to investigate for which contexts the judgments of the Netherlandic Dutch and the Belgian Dutch participants correspond and for which contexts their judgments diverge and to what extent. In this way, this essay aims at contributing to the description of syntactic differences between national varieties of standard Dutch.

De Troij, Grondelaers and Speelman (2023) observe that empirical research on the relationship between Netherlandic Dutch and Belgian Dutch has primarily targeted variation in pronunciation and the lexicon, but that relatively little is known (but see Haeseryn 1996; 2013) about how the national varieties compare at the level of grammar and morphosyntax, natiolectal variation with respect to syntax being thought to be absent or not being recognised because of ideological reasons. With the help of large bilingual parallel corpora and machine translation software, De Troij, Grondelaers and Speelman (2023) discovered that natiolectal variation in the grammar of Dutch is far more present than has often been assumed, especially in less edited text types such as discussion lists. They found natiolectal variation in 18 out of 20 alternative morphosyntactic types, comprising variable adnominal inflection, analytic versus synthetic constructions and variation in auxiliiation. The current essay aims at contributing to this line of research, focusing on the contexts in which the partitive pronoun ER can be used in the two national varieties and using grammaticality judgments instead of production data.

The essay is structured as follows. In Section 2, the concept ‘national varieties of standard Dutch’ is introduced and is illustrated by means of a short description of the use of the partitive pronoun ER in national varieties of standard Dutch. In Section 3, literature reporting the results of research on several contexts of use of the partitive pronoun ER in, essentially, standard Netherlandic Dutch, is presented. Section 4 contains the methodology for the present study. The results of this study are presented in Section 5 and discussed in Section 6. The essay ends with some conclusions in Section 7.

2 National Varieties of Standard Dutch

2.1 A Pluricentric Vision

Since several decades, one of the most important grammars in which modern standard Dutch is described is the Dutch Reference Grammar.² The Dutch Reference Grammar is a descriptive grammar (Coleman et al. 2021a).³ The first edition of the Dutch Reference Grammar was published as a printed book (Geerts et al. 1984). The second, revised, edition was published in 1997 in a printed form (Haeseryn et al. 1997) and in 2002 this second edition appeared online (Haeseryn, Coppen, de Vriend 2002). The third, partly revised, online edition was published in 2021 (Coleman et al. 2021b).

In the course of the years, the vision of the authors of the Dutch Reference Grammar on what is the Dutch standard language has changed (Coleman et al. 2021a). In the second edition of the Dutch Reference Grammar (Haeseryn et al. 1997), the Dutch standard language only comprises language phenomena that are used in the entire Dutch language area. This means that in this vision phenomena that are only used in the Dutch language of a specific area, such as Belgian Dutch, do not belong to the Dutch standard language. In fact, the “norm” in the second edition of the Dutch Reference Grammar is Netherlandic Dutch, whereas phenomena that only occur in Belgian Dutch have received the label “regional” (Haeseryn 2016). In the last decades, this vision has been replaced by a more symmetrical vision on what is the Dutch standard language (Coleman et al. 2021a). In the third edition of the Dutch Reference Grammar (Coleman et al. 2021b), a vision is formulated that is based, among others, on the report *Visie op taalvariatie en taalvariatiebeleid* (Vision on language variation and language variation policy), a text of the Advisory Committee on Language Variation commissioned by the General Secretariat of the Language Union (Vandekerckhove et al. 2019). In the vision of this report, the Dutch standard language is largely identical in the whole Dutch-speaking language area, but each part of the Dutch language area has language phenomena that are typical for the language of the specific region. These regional phenomena may also belong to the Dutch standard language. With respect to national varieties, this revised vision of the Dutch standard language is a pluricentric vision on language

² The Dutch name of the grammar is *Algemene Nederlandse Spraakkunst*, abbreviated as ANS.

³ For questions about the Dutch language it is also possible to consult *Taaladvies.net*, which is a language advice website of the Dutch Language Union (Nederlandse Taalunie) and which has a prescriptive role (Dhondt et al. 2020).

(Dhondt et al. 2020), in which there are several regional norms for the standard language. This pluricentric vision on language is also adopted by *Taaladvies.net*, which has a language desk for both Netherlandic Dutch and Belgian Dutch, and has also been adopted for languages like English or German (Haeseryn 2016).

The national varieties that are essentially described in the third edition of the Dutch Reference Grammar are Netherlandic, Belgian and Surinamese Dutch. Regional varieties that are used within these three language areas are sporadically described in the Dutch Reference Grammar (Colleman et al. 2021a). The Dutch Language Union (*Taalunie*), founded in 1980 by the governments of the Netherlands and Belgium, is a regulatory institution that governs issues regarding the Dutch language. Suriname has been an associate member of the *Taalunie* since 2004 (Ghyselen 2022).⁴ Since much less is known about Surinamese standard Dutch than about Netherlandic Dutch and Belgian Dutch, in the Dutch Reference Grammar there is only a limited description of grammatical phenomena that typically occur in Surinamese standard Dutch. In the next subsection the Dutch Reference Grammar's description of the use of the partitive pronoun ER in national varieties of standard Dutch will be presented.

2.2 The Partitive Pronoun ER in the Dutch Reference Grammar

The third edition of the Dutch Reference Grammar was published online in 2021, although several sections or chapters had not been revised yet. This also holds for the sections on the partitive pronoun ER, whose revision will not start before 2024. The version of the section on the partitive pronoun ER present in the third edition of the Reference Grammar is still the same as in the second edition. This means that the pluricentric vision has not yet been incorporated into this part of the Reference Grammar.

The subsection on the partitive pronoun can be found under the section "Adverb". Three regional distinctions are made. First, cases are presented that are used in the whole Dutch-speaking area and thus the standard language, such as the use of ER with a quantifier, as in (3). A second case that is presented, is the use of non-referential ER versus the use of a definite pronoun such as ZE 'them':

⁴ Although there is also an official collaboration between the Dutch Language Union and the Caribbean part of the Dutch Kingdom, for many speakers there Dutch is not the mother tongue (Vandekerckhove et al. 2019). This could explain why Caribbean Dutch is not included in the Dutch Reference Grammar.

- (8) “*Heb je ballen bij je?*” “*Ja, ik heb ER bij me.*”
 have you balls with you yes I have PART.WK with me
 “Did you take balls with you?” “Yes, I took balls with me.”
- (9) “*Heb je ballen bij je?*” “*Ja, ik heb ZE bij me.*”
 have you balls with you yes I have them with me
 “Did you take balls with you?” “Yes, I took balls with me.”

Both versions are considered to be belonging to the standard language, but there is a regional difference in use: ER is used in Belgium and to a lesser extent in the southern provinces of the Netherlands (called the *x*-speakers in the Dutch Reference Grammar), although in the rest of the Netherlands, where ZE is used (called the *y*-speakers), *y*-speakers may know that ER could be used as well and may consider its use to belong to the standard language in this context.⁵

In the non-referential use, the pronoun does not refer to the whole antecedent, but in fact only to the noun. It indicates a subset of a category. In the referential use of the pronoun, only ZE can be used in the whole Dutch-speaking area. ZE refers to the whole set of apples that was introduced in the first part of the sentence:

- (10) *Ik heb vanmorgen appels geplukt en*
 I have this morning apples plucked and
ik heb ZE aan de burens gegeven.
 I have them to the neighbours given
 ‘This morning I have plucked apples and I have given them to the neighbours.’

A third case that is presented, is one which in the second and not yet revised version of the text on the partitive pronoun in the third edition is considered to not belong to the standard language. In the Belgian area, it is possible to use ER in combination with an indefinite noun phrase containing an adjective, see also De Schutter (1992):

⁵ The Dutch Reference Grammar does not explicitly make a similar remark about the use or knowledge of the use of ZE in non-referential contexts by *x*-speakers. One of the reviewers observes, however, that the Dutch Reference Grammar does not claim the use of the definite pronoun in these contexts to be absent or ungrammatical in the Belgian area. According to De Schutter (1992, fn. 2), in the Belgian area ZE can only be used in combination with an elliptical NP containing a PP, as in (i). In this context ER can also be used:

- (i) *De rode truitjes zijn verkocht, maar we hebben ER/ZE nog wel in 'tblauw.*
 the red sweaters are sold, but we have PART.WK/them still yes in the blue
 ‘The red sweaters have been sold, but we still have them in blue.’

- (11) *“Wat voor rozen hebt u?” “Ik heb ER witte en rode.”*
 what for roses have you I have PART.WK white and red
“What kind of roses do you have?” “I have white and red ones.”
- (12) *“Zijn er nog andere rozen?”*
 are there still other roses
“Nee, er zijn ER geen andere.”
 no there are PART.WK no other
“Are there also other flowers?” “No, there are no other ones.”

Furthermore, in the Belgian area it is possible to use ER replacing a mass noun, without a quantifier, see also De Schutter (1992):

- (13) *“Wilt u nog koffie” “Nee, ik heb ER nog.”*
 want you still coffee no I have PART.WK still
“Would you like to have more coffee?” “No, I still have coffee.”

If, in the pluricentric vision of the third edition of the Dutch Reference Grammar, regional phenomena may also belong to the Dutch standard language, it could be the case that this third case, ER with an adjective and ER replacing a mass noun, would be considered to belong to the Belgian variety of the standard language. The definition that is given of “standard language” in the Dutch Reference Grammar is:

the language that is generally used in public communication, that is in all major sectors of public life: government and administration, jurisdiction, education, media, etc.

That this third case would belong to the standard language could be supported by the fact that Sleeman (1998) found sentences like (13) in an exercise book belonging to a Belgian grammar book, which is the sector “education” of public communication, and which belongs to the standard language.

In this essay, the statements in the Dutch Reference Grammar with respect to partitive ER are checked. Furthermore, it is investigated if there are more contexts in which the use of partitive ER in the Netherlandic and the Belgian varieties of standard Dutch differ. It is also checked to what extent contexts with ER are accepted by native speakers. Before presenting the research, some other investigations on the use of ER in contexts that are relevant for this essay are presented.

3 Previous Research on the Use of Partitive ER in Various Contexts

In the Introduction, results from the study by Sleeman (2023) on the acceptance of the use of ER with intransitive verbs and an elliptical quantified adverbial NP or elliptical measure NPs by native speakers of Netherlandic and Belgian Dutch were presented. In this section other results of previous research on the use of ER in various contexts are presented. Most research concerns Netherlandic standard Dutch. One research concerns Heerlen standard Dutch, which is a regional variety used in a city in the south-east of the Netherlands.

3.1 Berends (2019)

Table 1 Two conditions of a Grammaticality Judgment Task on ER (adapted from Berends 2019)

Condition		Sentences								
Numeral	Introduction	<i>Vorige</i>	<i>week</i>	<i>hebben</i>	<i>jullie</i>	<i>drie</i>	<i>films</i>	<i>bekeken.</i>		
		last	week	have	you	three	films	seen		
	Target gram.	<i>Deze</i>	<i>week</i>	<i>hebben</i>	<i>wij</i>	<i>ER</i>	<i>vier</i>	<i>bekeken.</i>		
	Target ungram.	<i>*Deze</i>	<i>week</i>	<i>hebben</i>	<i>wij</i>		<i>vier</i>	<i>bekeken.</i>		
		this	week	have	we		four	seen		
'Last week you have seen three films. This week we have seen four.'										
Adjective	Introduction	<i>Vorig</i>	<i>jaar</i>	<i>heb</i>	<i>ik</i>	<i>vijf</i>	<i>grote</i>	<i>cadeaus</i>	<i>gekregen.</i>	
		last	year	have	I	five	big	presents	received	
	Target gram.	<i>Dit</i>	<i>jaar</i>	<i>heb</i>	<i>jij</i>		<i>vijf</i>	<i>kleine</i>	<i>gekregen.</i>	
	Target ungram.	<i>*Dit</i>	<i>jaar</i>	<i>heb</i>	<i>jij</i>	<i>ER</i>	<i>vijf</i>	<i>kleine</i>	<i>gekregen.</i>	
		this	year	have	you	ER	five	small	received	
'Last year I have received five big presents. This year you have received five small ones.'										

In a syntactic study, Berends (2019) submitted a Grammaticality Judgment Task to a group of 25 adult native speakers of Netherlandic Dutch. The participants were recruited in and around Amsterdam, which is a city in the western part of the Netherlands. The test consisted of pre-recorded sentence pairs: an introductory sentence and the test sentence. Visual stimuli were not provided. Two of the conditions were ER + numeral and ER + numeral and adjective. For each sentence with ER, there was a corresponding sentence without ER. Based on the literature (Sleeman 1996; Kranendonk 2010), Berends predicted that sentences containing ER + numeral and sentences containing a numeral and an adjective without ER would be judged grammatical, and the corresponding sentences without and with ER, respectively, ungrammatical [tab. 1]. For each condition there were 10

sentences, 5 with ER and 5 without. The participants were asked to judge the sentences on their grammaticality according to Dutch prescriptive grammars. They were sitting in front of a computer screen and were asked to press a red button when they judged a sentence incorrect and a green button when they judged a sentence correct.

For each of the two conditions, Berends presents the results of the sentences with and without ER together. Table 2 gives an overview of the means per condition.

Table 2 Means per condition for L1 Netherlandic Dutch speakers (adapted from Berends 2019)

	L1 Netherlandic Dutch
ER [+/*-present] with numeral	9.04/10
ER [*+/-present] with numeral and adjective	5.56/10

For the condition with a numeral, the result is as predicted, but for the condition ‘numeral + adjective’ it is not. Since an accepted cut-off point for acceptance is a score above 80% (e.g., Muftah, Eng 2011; Muftah, Rafik-Galea 2013; Spinner, Jung 2017), Berends set the cut-off point for rejection at a score below 20%, and the chance level between 40% and 60%. Based on the literature, Berends expected the means for the condition ‘numeral + adjective’ to be below 2.0. Although the mean score for the condition ‘numeral + adjective’ (5.56/10) is much lower than the mean score for the condition ‘numeral’ (9.04/10), it is not below 2.0, but it is at chance level. Berends suggests that it might be the case that Netherlandic standard Dutch is becoming more tolerant in allowing ER in combination with a numeral + adjective, a combination that is also allowed in some Dutch dialects (Kranendonk 2010).

Berends also conducted a semantic research on the acceptance by the same 25 native speakers of Netherlandic Dutch of sentences containing ER in combination with a non-presuppositional or a presuppositional quantifier. There were two types of non-presuppositional quantifiers: [-definite], as the quantifier *een heleboel* ‘a lot, many’, introduced by an indefinite article, and [-strong], as the quantifier *enkele* ‘some’. There were also two types of presuppositional quantifiers: [+definite], as the quantifier *de helft* ‘half’, introduced in Dutch by a definite article, and [+strong], illustrated by the quantifier *sommige* ‘some of them, certain’.

According to De Jong (1983) and De Hoop (1992), partitive ER encodes the referential characteristic [-presupposition]. The authors claim that ER can only appear in sentences in which the quantifier is also non-presuppositional. Berends (2019) therefore predicts that native speakers of Dutch will judge sentences containing ER in combination with the non-presuppositional quantifiers *een heleboel*

and *enkele* grammatical and sentences containing ER in combination with the presuppositional quantifiers *de helft* and *sommige* ungrammatical:⁶

[-presuppositional]

(14) [-definite]

Zij bakt ER een heleboel.
She bakes PART.WK a lot
'She bakes many.'

(15) [-strong]

Zij bakt ER enkele.
She bakes PART.WK some
'She bakes some.'

[+presuppositional]

(16) [+definite]

**Zij bakt ER de helft.*
She bakes PART.WK the half
'She bakes half of them.'

(17) [+strong]

**Zij bakt ER sommige.*
She bakes PART.WK certain
'She bakes some of them.'

In this test only sentences with ER were tested, and not versions without ER. The test was again a computer-based Grammaticality Judgment Task. The sentences were again pre-recorded audio-sentences containing a preamble sentence and a test sentence. For each type of the four quantifiers there were 5 sentences, presented in a random order. Participants were asked to indicate on a scale ranging from 1 to 5 whether they thought that native speakers of Dutch would never say such a sentence (indicated by '1') or whether they thought that native speakers of Dutch would produce such a sentence (indicated by '5'). For the analysis, the results of the two non-presuppositional quantifiers + ER were taken together and the results of the two presuppositional quantifiers + ER were taken together.

⁶ The Dutch Reference Grammar explicitly makes a remark about the impossibility of the combination of *sommige* with ER (5.9.3.2.vi, 6), attributing the predicate "excluded" to the combination.

The acceptance rate, on a 5-point scale, of the sentences with ER and a non-presuppositional quantifier was 91%, as predicted. The acceptance rate of the sentences with ER and a presuppositional quantifier was 60%, which was not predicted on the basis of the literature. However, a statistical analysis showed that there was a significant difference between the acceptance rates of the [-presuppositional] and [+presuppositional] quantifiers in combination with ER [tab. 3].

Table 3 Acceptance rates in the non-presuppositional and presuppositional conditions (adapted from Berends 2019)

Grammatical [-presupposition]	Ungrammatical [+presupposition]	p
3.62 (SD 0.52)	2.39 (SD 1.20)	0.0002 ***

3.2 Sleeman and Ihsane (2017; 2020)

Sleeman and Ihsane (2017; 2020) present the results of 23 Dutch students, all native speakers of Dutch and all being students of French at the University of Amsterdam. They filled in two Grammaticality Judgment Tasks, one for French and one for Dutch, with the options “Correct” and “Incorrect”. Only the results of the Dutch version are presented here. The test contained:

- i. 6 sentences with a non-presuppositional quantifier: 3 with ER and 3 without ER, as in (3);
- ii. 6 sentences with non-referential plural noun phrases: 3 with ER, as in (8), and 3 with ZE, as in (9);
- iii. 6 sentences with referential plural NPs: 3 with ZE, as in (10), and 3 with ER;
- iv. 6 sentences with a mass noun: 3 with ER, as in (13), and 3 with the singular definite pronoun HET ‘it’;
- v. 6 negated sentences with a mass noun: 3 with ER and 3 with the singular definite pronoun HET, as in (18-19):

[Situation: Anne: “Do you never drink wine?”]

(18) *Lucie:* “*Nee, ik drink ER nooit.*”
 Lucie no I drink PART.WK never
 Lucie: “No, I never drink it.”

[Situation: Anne: “Do you never drink wine?”]

(19) *Lucie:* “*Nee, ik drink HET nooit.*”
 Lucie no I drink it never
 Lucie: “No, I never drink it.”

- vi. 6 negated sentences with a plural bare noun: 3 with ER and 3 with the plural definite pronoun ZE, as in (20-21):

[Situation: Claire: “When you were in Brittany, didn’t you eat oysters?”]

(20) Paul: “Nee, ik heb ER niet gegeten.”

Paul no I have PART.WK not eaten

Paul: “No, I did not eat oysters.”

[Situation: Claire: “When you were in Brittany, didn’t you eat oysters?”]

(21) Paul: “Nee, ik heb ZE niet gegeten.”

Paul no I have them not eaten

Paul: “No, I did not eat them.”

- vii. 6 sentences with an indefinite noun phrase containing an adjective, 3 with ER and 3 without ER, as in (11-12).

The reason for testing sentences such as (18-21) was that in sentences with a negation an indefinite can only be non-referential. In sentences such as (8-9) and (10) the (non-)referentiality depends on the context, and thus on how the participant interprets the sentence.

The results are presented in Figure 1. Per condition there were two options and therefore there are two bars per condition.

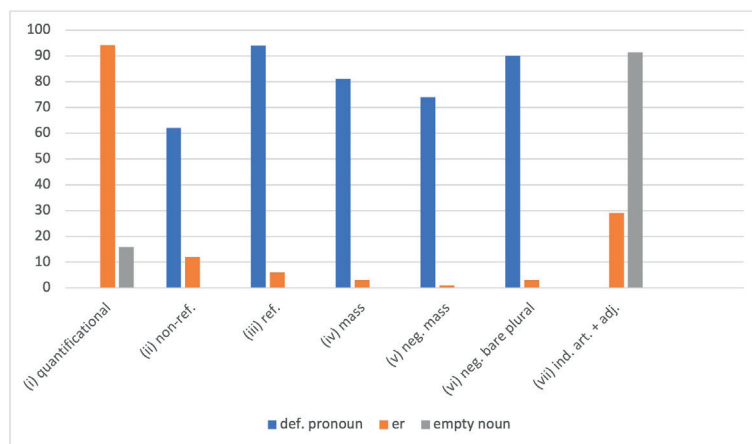


Figure 1 Acceptance of definite pronoun, “er” and empty noun by native speakers of Dutch (Sleeman and Ihsane 2017; 2020)

The results in Figure 1 show that the Dutch participants in Sleeman and Ihsane’s research overwhelmingly accepted the use of the definite pronoun, not only in referential contexts (iii), but also in

non-referential contexts such as (ii), (v) and (vi). Since the participants were students from the University of Amsterdam, most or all probably were from the western part of the Netherlands.⁷ According to the Dutch Reference Grammar, these speakers use the definite pronoun in non-referential contexts. Since, according to the Dutch Reference Grammar and De Schutter (1992), only speakers from Belgium use ER referring to mass nouns, the high percentage of acceptance of a definite pronoun in this context (iv) in Figure 1 is expected as well. The high acceptance of ER with a quantifier (i) is expected also. In more than 90% of the cases the omission of ER with an indefinite determiner and an adjective was accepted, as expected on the basis of the Dutch Reference Grammar, which states that it is possible to use ER in combination with an indefinite noun phrase containing an adjective in the Belgian area, see Section 2.2. This suggests that in the standard language of the Dutch area the combination of ER and an elliptical indefinite noun phrase containing an adjective is not possible. However, in almost 30% of the cases the use of ER with an indefinite determiner and an adjective was accepted. This percentage is lower than the 5.56/10 score in Berends' (2019) Grammaticality Judgment Task, see Section 3.1, but still higher than the cut-off point for rejection at a score below 20% set by Berends (2019). Although according to De Schutter (1992) the combination of ER with a numeral + adjective is completely unusual in Netherlandic Dutch, Kranendonk (2010) shows that it is allowed in some Dutch dialects. Kranendonk (2010) divides them into northern Dutch and southern Dutch for reasons of geographical distribution.

3.3 Cornips and Sleeman (2024)

Cornips and Sleeman (2024) investigated the use of the partitive pronoun in the quantificational construction and in the Age/Weight construction in Heerlen standard Dutch. The corpus was collected by Cornips (1994). The data consists of sociolinguistic interviews between 67 speakers of Heerlen Dutch, who interviewed each other. In the quantificational construction, ER was used 138 times (conform the use in Netherlandic standard Dutch) and omitted 28 times. The omission of ER is illustrated in (22). In the Age/Weight construction, ER was omitted 67 times (conform the use in Netherlandic standard Dutch) and used 14 times. This is illustrated in (23-25).

⁷ As stated at the beginning of Section 3.2, the participants were students of French of the University of Amsterdam. There are different departments of French spread over the country. Students of French generally choose a local university.

(22) *er is Ø nog eentje die in de boom gehangen heeft* [Henk]
 there is another one.DIM who in the tree hung has
 ‘there is another one who has hung in the tree’

(23) *ik was Ø vierenzeventig toen ik begon* [Mr. Balk]
 ‘I was forty-four when I started.’

(24) *ik was ER 15* [Leo]
 I was PART.WK 15
 ‘I was 15 [years].’

(25) *ik was ER 95 toen ik eruit kwam* [Dik]
 I was PART.WK 95 when I out came
 ‘I was 95 [kilos] when I got out.’

Most of the previous research concerns the acceptance of ER in various contexts by native speakers of Netherlandic Dutch and shows some regional variation within the Netherlands. The goal of the research for this essay is to compare the judgments of native speakers of Netherlandic and Belgian Dutch. In the next section the methodology is presented.

4 Methodology

The goal of the essay is to investigate for which contexts with or without the partitive pronoun ER the judgments of the Netherlandic Dutch and the Belgian Dutch participants correspond and for which contexts their judgments diverge and to what extent.

4.1 Test Materials

A Grammaticality Judgment Task was created consisting of 75 sentences which had to be evaluated with respect to their acceptability. They were presented in a randomised order. Because of the length of the test, only the options “Correct” and “Incorrect” were available as possible answers. The test contained the following categories, presented in 66 sentences:

- i. 6 quantificational sentences (3 sentences with ER and 3 without ER)
- ii. 6 non-referential NPs (3 sentences with ER and 3 with a definite personal pronoun)
- iii. 6 referential NPs (3 sentences with ER and 3 with a definite personal pronoun)

-
- iv. 6 mass nouns (3 sentences with ER and 3 with a definite personal pronoun)
 - v. 6 negated mass nouns (3 sentences with ER and 3 with a definite personal pronoun)
 - vi. 6 negated bare plural nouns (3 sentences with ER and 3 with a definite personal pronoun)
 - vii. 6 sentences containing an indefinite article + adjective (3 sentences with ER and 3 without ER)
 - viii. 6 sentences containing the presuppositional quantifier *de helft* ‘(the) half’ (3 sentences with ER and 3 without ER)
 - ix. 6 sentences containing an indefinite quantity noun: *een kilo* ‘a kilogram’, *drie liter* ‘three litres’ and *twee glazen* ‘two glasses’ (3 sentences with ER and 3 without ER)
 - x. 6 sentences containing a measure noun referring to ‘age’, ‘weight’ or ‘cost’ (3 sentences with ER and 3 without ER)
 - xi. 6 sentences containing an intransitive verb (*blijven* ‘to remain’, *slapen* ‘to sleep’ and *zwemmen* ‘to swim’) and a quantified adverbial NP (3 sentences with ER and 3 without ER)

There were also 9 fillers.

The categories (i)-(vii) with the test sentences were taken from Sleeman and Ihsane (2017; 2020). On the basis of the Dutch Reference Grammar no difference in judgments was expected for category (i), but for the categories (ii) and (iv)-(vii) it was expected that native speakers of Belgian Dutch are more tolerant with respect to the use of ER than native speakers of Netherlandic Dutch. Category (viii) was added based on Berends (2019). Berends shows that in French the partitive pronoun is used with the presuppositional, definite quantifier *la moitié* ‘(the) half’. Berends shows that this also holds for indefinite determiner + adjective. Therefore, another category was added in which in French (and Italian) a partitive pronoun is used. This is category (ix). The categories (x) and (xi) were added because according to the literature the use of a partitive pronoun in combination with an intransitive verb is not allowed (Belletti, Rizzi 1981; Barbiers 2017), which raises the question whether there could be a difference between Netherlandic and Belgian standard Dutch, Belgian Dutch being generally more permissive with respect to the use of the partitive pronoun in various contexts than Netherlandic standard Dutch. The results for these two categories were already presented in Sleeman (2023), see the Introduction, but will also be presented in the Results section of this essay.

4.2 Participants and Procedure

The test was presented in SurveyMonkey (<https://www.surveymonkey.com>) and spread via social media, with a snowball effect. The participants could fill in the test in an anonymous way. They also answered some personal questions, such as their mother tongue, their age and their country of birth and residence. They had to give their informed consent for the use of their anonymous data for scientific purposes before they could proceed to the test.

4.3 Analysis

Only tests that were completely filled in and that were filled in by native speakers of Dutch who were not early bilinguals were retained for analysis.⁸ This resulted in the data of 15 monolingual speakers of Netherlandic standard Dutch (age range 21-50+) and 15 native speakers of Belgian Dutch (age range 18-50+).⁹

The results of one sentence of category (vi), negated bare plural nouns with ER, were not taken into consideration, because the test sentence contained a negative quantifier, *geen* 'no', and not a bare noun.

8 The participants were asked if they had been living for some time in the Netherlands or in the Dutch-speaking part of Belgium. The goal of this question was to know if they had been living in another Dutch-speaking country than their own, but the answers showed that this may not have been clear. Only the data from participants who answered "Yes, I am from the Netherlands" or "Yes, I am from Belgium" were retained for analysis.

The participants were also asked if they were living or had been living in a region where a dialect or a regional language is spoken (and if this was the case, which one(s)), and which dialect(s) or regional language(s) they spoke or understood well, and to what degree. The results of the analysis of these data showed that there was regional variation, but since the number of participants per national variety left for analysis was rather low, no correlation with the results could be established.

9 Participants who were older than 50 years did not have to specify their age any further. One of the goals of the study was to investigate whether there was a difference in acceptance between a younger age group of participants (who had not reached the age of 35 years) and an older age group of participants (35+), but due to the relatively low number of participants left for analysis, such a comparison could not be made.

5 Results

The results of the judgments of the 66 experimental sentences are presented in Figure 2 for the Netherlandic Dutch participants and in Figure 3 for the Belgian Dutch participants [figs 2-3].

The results of the categories (x) and (xi) were already presented in the Introduction to this essay, but are presented here as well. There were two options and therefore theoretically two bars per condition. In conditions (v) and (vi) there is only one bar in Figure 2, because there was 0% of acceptance of the use of ER in these conditions.

For most of the categories there is more than 80% of acceptance and/or less than 20% of acceptance of one of the two variants that were presented to the native speakers of Netherlandic Dutch. ER replacing a mass noun accompanied by a negation and ER replacing a bare plural noun accompanied by a negation were accepted in 0% of the cases.

In the judgments of the native speakers of Belgian Dutch, there is only one category for which one of the two variants is judged correct in more than 80% of the cases and for which the other variant is judged correct in less than 20% of the cases. This is the category “quantificational NP” (i). For the categories “indefinite quantity noun” (ix) and “quantified adverbial NP” (xi), the general pattern is the same as in the data of the Netherlandic Dutch data, although the percentages for the variant with ER differ somewhat for the category “indefinite quantity noun” (9% of acceptance in Netherlandic Dutch and 27% of acceptance in Belgian Dutch). For the category “referential”, the definite pronoun is accepted in more than 90% of the cases, as in the Netherlandic Dutch data, but ER is accepted in 31% of the cases, which is more than in the Netherlandic Dutch data (9%). Since ER was accepted in 71% of the cases in the category “non-referential” in the Belgian Dutch data, but only in 24% of the cases in the Netherlandic Dutch data, the interpretation of a referential NP as a non-referential NP (in both varieties) may thus account for the relatively high percentage of acceptance of ER with referential NPs in the Belgian Dutch data. The general pattern is also the same in the case of negated mass nouns (v) and negated bare plurals (vi), although the percentages of acceptance of the definite pronoun are lower than in the Netherlandic Dutch data. The general pattern is furthermore the same for the category “*de helft*” (viii), although ER was also accepted in 40% of the cases, but in the Netherlandic Dutch data only in 11% of the cases.

The general pattern of judgments with respect to the Netherlandic Dutch data differ in four cases: “non-referential NPs” (ii), “mass nouns” (iv), “indefinite article + adjective” (vii) and “measure nouns” (x). For non-referential NPs, mass nouns and indefinite article + adjective this is expected on the basis of what is observed in the Dutch

The Partitive Pronoun ER in Two National Varieties of Standard Dutch

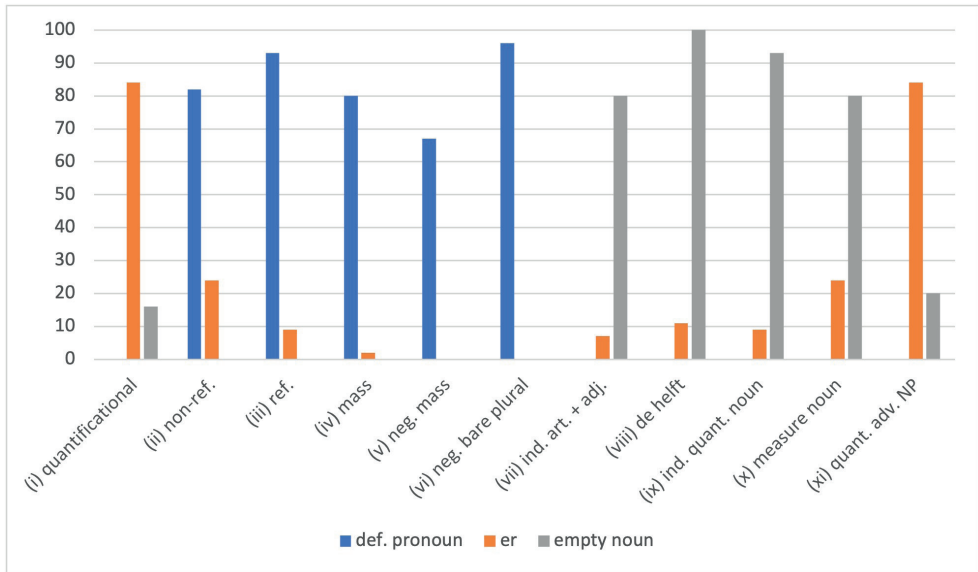


Figure 2 Acceptance of definite pronoun, “er” and empty noun by Netherlandic Dutch participants

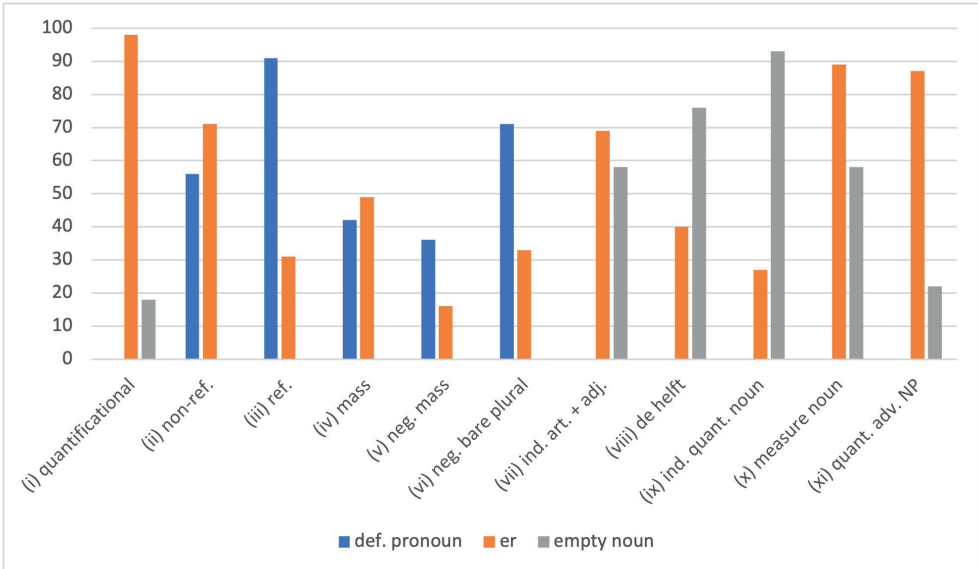


Figure 3 Acceptance of definite pronoun, “er” and empty noun by Belgian Dutch participants

Reference Grammar and De Schutter (1992). The category “measure nouns” is not presented in the Dutch Reference Grammar. For these four categories, the “other” variant is also accepted to a relatively high degree.

6 Discussion

In this essay it was investigated for which contexts with or without ER the judgments of the 15 Netherlandic Dutch and the 15 Belgian Dutch participants correspond and for which contexts their judgments diverge and to what extent.

The general patterns correspond for the five categories “quantificational NP”, “referential NP”, “*de helft*”, “indefinite quantity noun” and “quantified adverbial NP”. For the first two categories this corresponds to the observations in the Dutch Reference Grammar. For the category “*de helft*” the variant with ER was accepted more in the Belgian Dutch data (40%) than in the Netherlandic Dutch data (11%). The same holds for the category “indefinite quantity noun”, such as ‘a kilo’ or ‘three litres’, where ER was also accepted more in the Belgian Dutch data (27%) than in the Netherlandic Dutch data (9%). These two categories were added to the test, because in a language like French (and Italian) the partitive pronoun is used with these categories. Both in the Netherlandic Dutch data and in the Belgian Dutch data the variant without ER is preferred, but the variant with ER is accepted to a certain extent as well in the Belgian Dutch data.¹⁰ ER is preferred with quantified adverbial NPs in the Belgian Dutch data as it is in the Netherlandic Dutch data. These results for both national varieties seem to contradict claims that have been made in the literature on the acceptability of the combination of the partitive pronoun and quantified adverbial NPs, see the Introduction.

For the four categories “non-referential NPs”, “mass nouns”, “indefinite article + adjective” and “measure nouns” referring to “age”, “weight” or “cost”, the general patterns in the Netherlandic vs. the Belgian Dutch data diverge. For the categories “non-referential NPs”, “mass nouns” and “indefinite article + adjective” this was predicted on the basis of what is observed in the Dutch Reference Grammar and in De Schutter (1992), although for the category “mass nouns” the variant with ER was accepted in only 49% by the Belgian Dutch speakers. The category “measure nouns” referring to age, weight and

¹⁰ One of the reviewers wonders if there could be influence from French. It could be the case that the relatively higher acceptance of the partitive pronoun in Belgian Dutch in these cases is influenced by the vicinity of French-speaking areas. However, De Schutter (1992) argues against the possibility of French influence to account for the more extensive use of ER in Belgian Dutch, attributing it to a language-internal overextension.

cost is not presented in the Dutch Reference Grammar. The results of the Grammaticality Judgment Task show a clear difference between the acceptance of the use of ER with this category in the Netherlandic Dutch data (24%) and the Belgian Dutch data (89%). It was shown for these four categories that the variant that was preferred in the Netherlandic Dutch data was also accepted to a relatively high degree by the native speakers of Belgian Dutch.¹¹

For the categories “negated mass nouns” and “negated bare plurals” it was predicted that ER would be accepted more by the Belgian Dutch participants than the definite pronoun. This was predicted on the basis of the fact that both types are non-referential. According to the Dutch Reference Grammar and De Schutter (1992), ER is used with non-referential elliptical NPs and with mass nouns in Belgian standard Dutch, but see fn. 5. However, the variant with the definite pronoun was preferred, as in the Netherlandic Dutch data. It is not clear if the difference between the two national varieties in the general patterns with respect to the categories “non-referential NPs” and “mass nouns” is due to the negation or if there could be another explanation. Both in the case of the category “mass nouns” and the category “negated mass nouns” the percentages of acceptance are relatively low, both for the variant with ER and for the variant with the definite pronoun.

The results differ from Berends (2019), discussed in Section 3.1, who tested native speakers of Netherlandic Dutch on their judgments on the combination of ER with an indefinite noun phrase containing an adjective and with presuppositional quantifiers such as *de helft*. For the first category the mean score in Berends (2019) was 5.56/10 (for adjectives with and without ER) and for presuppositional quantifiers (*de helft* and *sommige* ‘some’ + ER) the average acceptance rate was 2.39/5. In the Netherlandic Dutch data used for this essay, ER was accepted in 7% of the cases with an adjective and in 11% of the cases with *de helft*, which are much lower percentages than in Berends’ results. It could be the case that the discrepancy is due to the different methodologies that were used: in Berends (2019) the test

¹¹ Whereas for the category “non-referential plural nouns”, the plural definite pronoun ZE ‘them’ was accepted in 71% of the cases by the Belgian Dutch participants, with the category “mass nouns” the singular definite pronoun was accepted in only 42% of the cases. A possible explanation could be that there was a gender mismatch between the antecedent and the definite pronoun in two of the three test sentences: whereas the antecedent was a common noun, the pronoun was a neuter pronoun, which is a generally accepted use in, at least, spoken Netherlandic Dutch for reference to mass nouns (Audring 2009). However, one of the mismatch sentences was accepted in 60% of the cases, but the matching sentence was accepted only in 40% of the cases. Therefore, a gender mismatch does not seem to be a viable explanation. Another explanation could be that, according to De Schutter (1992) ZE is acceptable in combination with an elliptical NP containing a PP, see fn. 5. The results suggest then that the acceptance of ZE is extended to non-referential NPs without a PP as well. With mass nouns only ER would be possible, according to De Schutter.

sentences were presented in an aural form, whereas in this study the participants read the test sentences and in Berends (2019) a graded scale was used, whereas in this study a binary scale was used. In Sleeman and Ihsane's (2017; 2020) results, presented in Section 3.2, the acceptance by the Netherlandic Dutch participants of ER with elliptical indefinite nouns containing an adjective was higher, namely 29%. With respect to the results of the other categories reported in Sleeman and Ihsane (2017; 2020) [fig. 1], the tendencies observed in the results of the judgments are the same [fig. 2]. The category "measure nouns" was not tested by Sleeman and Ihsane. The use of ER in combination with the measure nouns "age" and "weight" in a corpus of Heerlen standard Dutch was studied by Cornips and Sleeman (2024). ER was used 14 times and omitted 67 times. In the Belgian Dutch data of this essay, the use of ER was accepted in 89% of the cases and its omission in 58% of the cases.

Because of the relatively small number of participants in this study, a statistical analysis has not been presented. Because of the relatively low number of participants, the results have to be taken with care, especially those of the Belgian Dutch participants. The Netherlandic Dutch data confirm to a large extent Sleeman and Ihsane's (2017; 2020) results. Since the statements of the Dutch Reference Grammar seem to be confirmed for Belgian standard Dutch, the results of the other contexts may also be valid. However, more research is needed, especially for the cases in which both variants were accepted to a low degree. Furthermore, this is a study on acceptance and not on production and regions where participants have been living could have influenced their acceptance of an option. More research is also needed in this respect.

In this essay, the acceptance of the use of the partitive pronoun ER by speakers of two national varieties of standard Dutch was investigated. Within the pluricentric vision of standard Dutch (see Section 2), there is, besides Netherlandic and Belgian standard Dutch, a third national variety of standard Dutch, namely Surinamese standard Dutch. Coleman et al. (2021a) observe that data about Surinamese Dutch are still largely absent in the third version of the Dutch Reference Grammar, because not much research has been done yet on this national variety. According to Vandekerckhove et al. (2019), one of the most widespread characteristics of Surinamese Dutch is the omission of the partitive pronoun ER in the quantificational construction, as in *Hoeveel kinderen heb je? Ik heb Ø vier*. 'How many children do you have? I have four.' If ER is absent in the quantificational construction in Surinamese standard Dutch, it could be expected that it is absent in other categories researched in this essay as well. However, it could be the case that in a Grammaticality Judgment Task ER would be accepted to a certain degree, under the influence of the asymmetric norm of Netherlandic standard Dutch. More research is also needed here.

7 Conclusion

The results of this essay confirm the statements made in the Dutch Reference Grammar with respect to differences between Netherlandic and Belgian standard Dutch. Whereas in Netherlandic Dutch the use of HET or ZE or the omission of ER is preferred with mass nouns, non-referential plural nouns and elliptical noun phrases containing an adjective, in Belgian Dutch the use of ER is preferred in these cases. It has been shown, however, in this essay, that the “other” variant is accepted as well in Belgian Dutch, but to a somewhat lower degree.

A new context that was tested, was the use of ER with elliptical measure nouns such as “age”, “weight” and “cost”. Whereas in the Netherlandic Dutch data the omission of ER was clearly preferred, in the Belgian Dutch data the use of ER was accepted in 89% of the cases, although the variant without ER was accepted as well, but to a lower degree.

Another new context that was added, was the use of ER with quantity nouns such as *een kilo* ‘a kilo’, *drie liter* ‘three litres’ or *twee glazen* ‘two glasses’. The data for both national varieties of standard Dutch showed a clear preference (93% in both cases) for the variant without ER.

A third new context was the use of ER with the presuppositional quantifier *de helft*. The Belgian Dutch participants accepted sentences with ER in 40% of the cases, which is relatively high, although the sentences without ER were preferred (76%), as in the Netherlandic Dutch data.

A fourth new context was the use of ER with quantified adverbial NPs. In both national varieties there was a clear preference for the variant with ER, contradicting claims that have been made in the literature.

Colleman et al. (2021a) observe that to be able to make well motivated statements about the status of current national varieties of standard Dutch, a valid method should be developed that can be replicated. This could be a uniform research in big and comparable corpora of national varieties of standard Dutch or a uniform questionnaire submitted to native speakers of national varieties. Colleman et al. (2021a) add that the results of such a large-scale empirical investigation could without any doubt lead to adaptations in the description of the status of national varieties in the Dutch Reference Grammar. Although the study presented in this essay was only a small-scale study, it is hoped that the results may lead to small adaptations in the third version of the section on partitive pronouns in the Dutch Reference Grammar or that the method may be used for follow-up research on a larger scale.

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**Partitive Constructions and Partitive Elements
Within and Across Language Borders in Europe**

edited by Elvira Glaser, Petra Sleeman,
Thomas Strobel, Anne Tamm

‘I Am Also Found on Facebook’ Locuphoric ‘Find’-Based Strategies in Finnish Internet Corpora

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Abstract Allophoric forms of the Finnish verb *löytyä* ‘to be found’ are used in locational constructions similarly to copulas, while the verb’s locuphoric forms have been claimed to be marginal. This essay confirms this claim by looking into Internet corpora and provides a qualitative overview of the types of utterances found in the sample, arguing that locuphoric forms may as well convey a locational function in certain contexts. The article also suggests a parallel between locuphoric ‘find’-based strategies and competing impersonal constructions containing the verb *löytää* ‘to find’, discussing the role of partitive-marked object arguments.

Keywords Locational. Existential. Partitivity. Corpus linguistics. Invenitive strategies.

Summary 1 Introduction. – 2 Background. – 2.1 Locational Constructions. – 2.2 The Use of *löytyä* as a Locational Copula. – 3 Material and Method. – 4 Results. – 4.1 Self-Advertisement in Internet Contexts. – 4.2 Permanent Versus Temporary Location. – 4.3 Mirative Marking. – 4.4 Other Uses. – 4.5 Competing Constructions. – 5 Discussion. – 6 Conclusion.



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1 Introduction

Basile and Ivaska (2021) have argued that the Finnish intransitive verb *löytyä* 'to be found' is used similarly to the locational copula *olla* 'to be'. Constructions containing this verb are highly specialised in that they often only convey a locational function, without involving the verb's original meaning FIND nor any kind of posture. For these reasons, they too can be considered copulas.¹

- (1a) *Puhelinnumerot löytyvät jäsenkirjeestä.*
phone.number.NOM.PL find.MM.3PL newsletter.ELA
'The phone numbers are (found) in the newsletter.'
(Basile, Ivaska 2021, 25)

- (1b) *Poikkeuksiakin ammattikunnasta löytyy*
exception.PL.PART.ENCL profession.ELA find.MM.3SG
'There are also exceptions in the profession.'
(Basile, Ivaska 2021, 33)

Like *olla* 'to be', *löytyä* triggers the nominative-partitive alternation in its first argument, also called the *locatum*, which is the subject or located element (Haspelmath 2022). Partitive subject-like arguments are typical of the Finnish Existential construction, which usually also features the lack of agreement between verb and NP (cf. 1a, 1b). Because of this lack of agreement, *löytyä* 'to be found' naturally appears almost always indexed for third persons. However, in their study, Basile and Ivaska also found one instance in which this verb is indexed for second person singular (2).

- (2) *Mistä löyd-y-t prinsini, 44-50-v. fiksu,*
where.ELA find-MM-2SG prince.1PX 44-50-y.o. smart
pitkähkö, ulkonäkö ok, pilke silmäkulmassa,
tallish appearance ok twinkle eye.corner.INE
lenkkeilet ja tanssit
jog.2SG and dance.2SG
'Where are you my prince, 44 to 50 years old, smart, tallish, good-looking,
with a twinkle in your eye, you who like to jog and dance.'
(Basile, Ivaska 2021, 18)

¹ I would like to thank Petra Sleeman and the two anonymous reviewers for their valuable comments and suggestions that substantially improved the quality of this essay.

They then argued that the example above is marginal and used only in certain contexts. But how marginal is it? Within the scope of this essay, I will try to answer this question, as well as to determine the semantic and pragmatic constraints under which this verb appears indexed for locuphoric forms (i.e., speaker and addressee forms, see Haspelmath 2013). I will show that most uses of locuphoric forms of the verb *löytyä* pertain to an Internet environment. These strategies are used to advertise the Internet presence of users on various platforms. I will also discuss other uses that do not necessarily refer to the Internet environment but are nevertheless not common in everyday speech (Juha-Matti Aronen, p.c., among others). After an overview of the relevant literature, including Basile and Ivaska (2021), in Section 2, I define the material and methods of the research at hand in Section 3. Section 4 presents the results and provides an analysis of the material. In Section 5, I discuss the results and, finally, Section 6 concludes the article and mentions some future research possibilities.

2 Background

The verb *löytyä* 'to be found' is an intransitive derived from the verb *löytää* 'to find' through the deverbal morpheme *-U-* (realising as *-u/y-* following vowel harmony), which has been argued to have several functions, such as automative, passive, and reflexive (Kulonen-Korhonen 1985; VISK § 335). For this morpheme, I use the term "middle marker" (Kemmer 1993, 41; Zúñiga, Kittilä 2019, 168; Inglese 2022; 2023), which conveniently subsumes its different functions. It is also to be considered that locuphoric forms of the verb *löytyä* do indeed retain their meaning FIND more often than the verb's allomorphic forms (third persons, see Dahl 2000; Haspelmath 2013; cf. "aliophoric" [Haspelmath 2020]), hence the middle markers they employ often express a passive function. This matter should however be further investigated by contrasting middle-marked forms of verbs with a root meaning FIND with unmarked ones (e.g., *löytää* 'to find'). The latter forms are arguably far more common in everyday speech but, for reasons of space and scope, I focus on the former and sketch a brief analysis of one of the possible competing constructions at the end of the article. Although the essay at hand does not analyse 'find'-based strategies from a cross-linguistic perspective, it is fundamental to bear in mind that these strategies are indeed used in other European languages for a variety of functions, especially to convey locational meaning (e.g., Italian *trovarsi* find.MM 'be located', Russian *nachodit'sya* find.MM 'be located'), and that they exhibit different usage patterns compared to Finnish when it comes to the

acceptability of allophoric versus locuphoric forms (Basile 2023).² The reasons why there exists this degree of variation are perhaps of a diachronic nature.

2.1 Locational Constructions

Locational constructions are forms of intransitive predication (Stassen 1997). They also fall within the concepts “non-verbal predication” (Hengeveld 1992; Roy 2013) and “copular clauses” (Declerck 1988; Mikkelsen 2011). An overview of these constructions is found in Haspelmath (2022), who distinguishes two main types: “predlocative constructions” and “existential constructions”. These two construction types involve two arguments, a located element and a location, which are linked by a stative linking element called a copula (Haspelmath 2022). Predlocative constructions (e.g., ‘The beer is in the fridge’) predicate about a *locatum* (also called “figure” [Talmy 2000; Koch 2012; Creissels 2014] or “pivot” [Milsark 1977; Bentley, Ciconte, Cruschina 2013]) which is represented by a usually definite referent (‘the beer’) that is said to be in a location expressed by a locative phrase (‘in the fridge’) by means of a copula (‘is’). In existential constructions (e.g., ‘There are beers in the fridge’), the *locatum* is instead also called the *existent*, and represents an indefinite and discourse-new referent (‘beers’). Existential constructions can be additionally marked for word order (see also Creissels 2019) or, in the case of English, expressed by an expletive followed by a copula (‘there are’). Both predlocative and existential constructions express a locational function and feature an overt locative phrase.

In the Finnish tradition, the prototypical Existential construction features a clause-initial locative adverbial, as well as no verbal agreement (such as in French *Il y a des hommes* ‘There are men’, where the existential copula is marked for singular and the existent *des hommes* is a partitive construction), and a discourse-new subject-like referent whose existence is being predicated (Hakanen 1972; VISK § 893; Huomo 2003). The subject-like referent has also been called an *e-NP* (existential Noun Phrase) because it does not satisfy the typical criteria assigned to subjecthood: for example, it is often marked for partitive case (Huomo, Helasvuo 2015). One problem with the Finnish traditional definition of Existential construction is that it is often similar to structures that have been called “presentationals” (Gast, Haas 2011), which can also feature partitive-marked arguments that

² Outside of Europe, ‘find’-based locational strategies have been found in, e.g., Tagalog and some Mande languages (Basile 2023). A cross-linguistic study is however needed to assess the productivity of such constructions.

do have the function of introducing new referents but typically do not express locational meaning. This happens because Finnish grammarians also allow for other (intransitive) 'existential verbs' to be used in the Finnish Existential construction, verbs that do not have a locational function. Such verbs are, e.g., *tulla* 'to come', *juosta* 'to run', *ilmestyä* 'to appear', and many others. Among these, however, the verb *löytyä* 'to be found' is a special case because not only its frequency in the Finnish Existential construction is much higher than the frequency of the rest of the existential verbs (Basile forthcoming), but also because it can express a purely locational function. It hence belongs to what Basile (2023) calls "inventive verbs" ('inventives'). Inventives are a class of verbs that have a root with meaning FIND (from Latin *invenire* 'to find') which becomes semantically bleached and fulfils other grammatical functions. Typically, inventives feature a valency-changing operation and are part of inventive-locational constructions, where they express a locational function without marking a specific posture (like posture verbs such as German *liegen* 'to lie' instead do). Inventives mostly occur in predicative constructions in European languages, but in Finnish (and in Estonian) they frequently appear in existential constructions as well. For this reason, it is often the case that Finnish and Estonian inventive-locational constructions feature partitive-marked existents (or e-NPs, see above). When *löytyä* is instead indexed for locuphoric forms, the pronoun it relates to cannot be marked for partitive case. Given that this verb is an intransitive, the locuphoric pronominal form for which it is indexed, if overt, will be marked for nominative case and constitute the syntactic subject of the clause.

2.2 The Use of *löytyä* as a Locational Copula

Basile and Ivaska (2021) investigate the nominative-partitive alternation of subjects in sentences containing the Finnish verb *löytyä* 'to be found' from a quantitative point of view.³ For subjects it is meant both canonical subjects (nominative-marked, clause-initial NPs that trigger verb agreement) and e-NPs, which can be either nominative-marked clause-final NPs or partitive-marked NPs. In both cases, e-NPs do not trigger verb agreement. When they are partitive-marked, they can occur both in clause-initial and clause-final position and usually suggest an existential reading. The method used in their article

³ The sample used in Basile, Ivaska 2021 is a random sample of 779 sentences taken from the corpus *Kansalliskirjaston lehtikokoelma (KLK)*, made of newspapers and magazines written in contemporary Finnish. Given the synchronic nature of the research, the collection of examples was limited to papers written between the beginning of 1990 and the end of 2000.

is mixed-effect logistic regression (Gries 2015), which consists in a binary (NOM-PART) response variable (subject case marking) explained based on both fixed-effect and random-effect explanatory variables. They find that several variables have a statistically significant effect on nominative-partitive alternation, such as the NP's number in correlation with whether it is a count noun or not, and word order in correlation with verb agreement. Verbal tense also showed statistical significance – this is particularly interesting since past tenses, often encoding perfective aspects, increase the likelihood of the verb *löytyä* preserving its original meaning FIND. The examples analysed are almost all indexed for allophoric forms, and the only example indexed for a locuphoric form is justified as being marginal. The example in question is taken into consideration since it interestingly seemed to convey a locational function, although no nominative-partitive alternation occurred. Basile and Ivaska (2021, 35) generally conclude that allophoric forms of the verb *löytyä* indeed function as copulas, and that semantic bleaching plays a role in this. As we see from the analysis below, locuphoric forms of the verb *löytyä* can also be considered as copulas, in that they too undergo semantic bleaching to some extent. This feature comes into play especially when considering the uses of *löytyä* to mark permanent versus temporary location.

3 Material and Method

The material used in the research at hand is taken from the corpus Finnish Web 2014 (fiTenTen2014), a Finnish corpus consisting of various text types taken from the web. It is a large corpus that contains ca. 1.7 billion tokens and ca. 127 million sentences. I accessed the corpus through the platform Sketch Engine (Kilgarriff et al. 2014), where I performed a simple search of all the affirmative, negative, and interrogative forms of the verb *löytyä* 'to be found' when indexed for locuphoric forms (first and second persons, both singular and plural). While in Finnish interrogative forms are obtained by adding the morpheme *-ko/-kö*, negative forms are analytical constructions – e.g., *en löydy* 'I am not to be found' for the first person singular – made of a negation (*en* NEG.1SG) followed by a connegative form (*löydy*). Between the negation and the connegative form it is possible to find several other parts of speech, such as adverbs. However, I only searched for negative constructions that were written subsequently, with no additional language material in between the negative and the connegative form. Additionally, none of the negative-interrogative forms (such as *enkö löydy* 'am I not found') nor past conditional forms (such as *olisin löytynyt* 'I would have been found') yielded any result, so I did not include them in Table 1, which lists all the locuphoric forms used.

Table 1 Locuphoric forms of the verb *löytyä*

	Affirmative	Negative	Interrogative
1SG.PRS	löydyn	en löydy	löydynkö
1SG.PST	lödyin	en löytynyt	lödyinkö
1SG.CND	löytyisin	en löytyisi	löytyisinkö
2SG.PRS	löydyt	et löydy	lödytkö
2SG.PST	lödyit	et löytynyt	lödyitkö
2SG.CND	löytyisit	et löytyisi	löytyisitkö
1PL.PRS	löydymme	emme löydy	löydymmekö
1PL.PST	löydymme	emme löytäneet	lödyimme
1PL.CND	löytyisimme	emme löytyisi	löytyisimmekö
2PL.PRS	lödytte	ette löydy	lödyttekö
2PL.PST	lödyitte	ette löytäneet	lödyittekö
2PL.CND	löytyisitte	ette löytyisi	löytyisittekö

I provide a descriptive statistical outlook of the search results in Section 4. The sentences in the sample are then analysed from a qualitative perspective.

4 Results

The corpus search yielded a total of 540 occurrences containing the verb *löytyä* in locuphoric forms. After manually going through all the occurrences, 91 were discarded for various reasons, such as:

- substantival uses of *löydyt* (a misspelled version of *löydöt* 'findings, bargains', and a homograph of *löytyä* when indexed for 2SG);
- transitive uses of *löytyä*, likely due to misspelling *löytää* 'to find';
- misspelled forms of *löytyy*, i.e., *find.MM.3SG*.

When we are dealing with Internet texts, we must account for what has also been called "bad language" (Eisenstein 2013). Posts on social media and forums are not post-edited and users will often misspell words for several reasons (Drouin, Davis 2009). Additionally, users may be second language learners or unbalanced bilinguals (for research on L2 Finnish, see, e.g., Ivaska [2010; 2011], who found that learners of Finnish tend to mix sentence types when producing complex constructions such as the Existential construction in writing). The final sample amounts to 449 sentences [fig. 1].

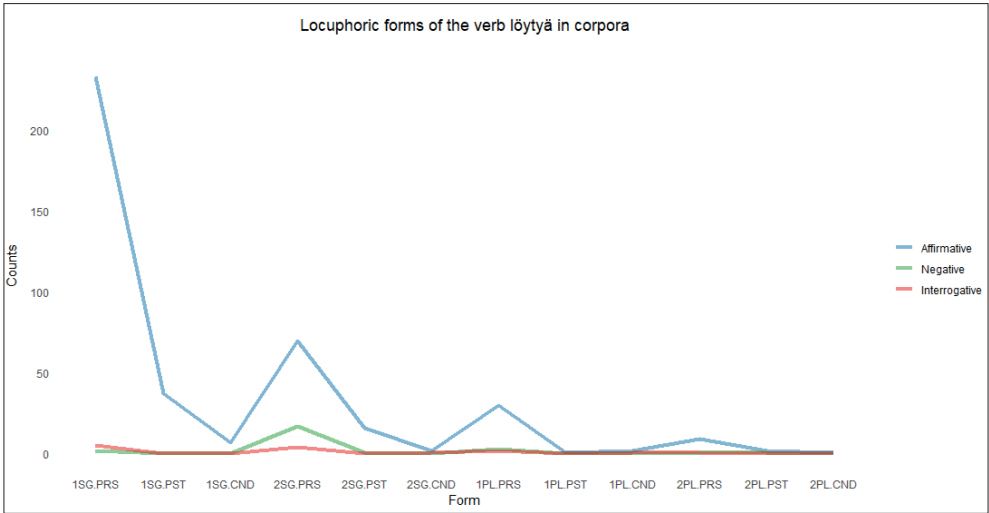


Figure 1 Results of the corpus search. Realised with RStudio by the author

Figure 1 confirms the claim by Basile and Ivaska (2021) according to which *löytyä* is rarely indexed for second person singular and, by extension, for all its locuphoric forms. In fact, locuphoric forms occur 449 times out of a total of ca. 1.2 million occurrences of the verb *löytyä* in the whole corpus. By comparison, performing a simple search of the allophoric form *löytyy* within the same corpus yields a total of 613,650 occurrences. The results show that the most common locuphoric form is the first person singular in the present tense, indicative mood. In the following subsections, I analyse the main functional characteristics of the sentences found in my sample from a qualitative point of view.

4.1 Self-Advertisement in Internet Contexts

Most occurrences of the verb *löytyä* with locuphoric forms are indexed for first person singular (284 sentences, 63.25%). Some marginal instances with other locuphoric forms, such as second persons, are discussed below, but it is to be kept in mind that there is no big difference in use when it comes to grammatical number. In general, people tend to frequently talk about themselves and index most verbs for first person singular. However, the reasons why it is also the case with locuphoric forms of *löytyä* is that the first person singular is mainly used in forum environments and social media, where speakers advertise their presence on other websites or platforms (3).

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

The speakers also use this strategy to make their usernames available and clear to their interlocutors and, through the Internet forum format, to the rest of the community. In these cases, the first singular form is accompanied by an adessive-marked NP such as *nimi* 'name', *nimimerkki* 'pseudonym', *tunnus* 'username' that specifies the users' Internet identity. The main pragmatic intent of this construction is made explicit in examples such as (4), where a verbless relative construction (*että...*) has the clearly conative function of wanting the addressee to add the speaker to their contact list.

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

In some examples, the difference between the speakers' real and Internet identity is made more evident. In (5), the NP containing the username is used with the postposition *taka-* 'behind' instead of being marked for adessive case like in (4). The same postposition can be used in presentational constructions such as (6), where the speaker's username is, however, not mentioned.

- (5) *Eli* *instagrammista* **löydyn** *niinkin* *tutun*
 that.is Instagram.ELA find.MM.1SG as.well familiar.GEN
nimimerkin *kuin* *partfour* *takaa.*
 pseudonym.GEN as user behind.ELA
 'So, I am also found on Instagram behind the username partfour.'

- (6) *Tämän* *blogin* *takaa* **löydyn** *minä*
 this.GEN blog.GEN behind.ELA find.MM.1SG 1SG
 'The person behind this blog is me.'

These constructions seem to pragmatically imply the permanent presence of the speakers on the Internet. This can be a feature encouraged by the very Internet environment, in which all usernames

can be considered to be available at all times, even when the person they refer to is not logged into the platform. This strategy is also employed with plural first persons, while second persons are mostly used to confirm to other users about their presence in a certain list or group, most likely on social media (7).

(7a) **Löydyt** jo suosikeistani!
find.MM.2SG already favourite.PL.ELA.1PX
'You are already among my favourites / in my favourites list!'

(7b) **Löydyt** kuitenkin edelleen sieltä tykkäjien joukosta.
find.MM.2SG anyway still there.ABL liker.PL.GEN group.ELA
'Anyway, you are still in the list of likers.'

4.2 Permanent Versus Temporary Location

According to Haspelmath (2022, 6), German uses two different strategies in existential constructions to mark whether a referent is permanently located at a certain location or only temporarily (*es gibt* lit. 'it gives' marks permanent location, while *stehen* 'to stand' refers to temporary presence). In my sample, different strategies are similarly used to mark these two locational strategies. The difference is, however, that the verb is not lexically differentiated like in German. The first strategy is the one we see in § 4.1, and marks permanent location through lexical devices that pertain to the speakers' Internet presence. The second strategy is characterised by temporal adverbials (8).

(8) **Löydyn** Fastin pisteellä kisojen jälkeen aina.
find.MM.1SG F.GEN point.ABL competition.PL.GEN after always
iltakuuteen asti
evening.six.ILL until
'After the competition, I am to be found at Fast's spot right until six in the evening.'

In this type, the locative phrase marks a real-world location, in which the speaker can be found for a limited time indicated by temporal adverbials like *iltakuuteen asti* 'until 6 in the evening'. The adverb *aina* 'always' also marks the event as recurrent, as does *viikonloppuisin* 'on weekends' in (9).

(9) *Viikonloppuisin löydyn hyvin poikkeuksetta pullon pohjalta.*
weekend.ITER find.MM.1SG very exception.ABE bottle.GEN BOTTOM.ABL
'On the weekends I am always drinking.' (lit. 'found at the bottom of the bottle')

The difference is that while (8) indicates the availability of the speaker, in (9) the location is fictive and metaphorical. The speaker here infers about her drinking habit. In another example, time framing is used as a strategy to communicate the appearance of the speaker in a video, inferring permanent presence within the video, however confined to a certain time interval (10).

- (10) *miehän löydyn TÄSTÄ pätkästä 50 sekunnin kohdilta*
1SG.EMPH find.MM.1SG this.ELA part.ELA 50 second.GEN place.PL.ABL
'I am to be found in THIS snippet at around 50 seconds.'

4.3 Mirative Marking

Mirativity is a linguistic category that expresses information that is surprising or unexpected to both the speaker and the addressee (DeLancey 1997; DeLancey 2001; Hengeveld, Olbertz 2012). Several European languages use 'find'-based strategies to mark mirative events (e.g., 'I found myself on the top of the hill'; 'I found myself thinking about you'), as the verb *löytyä* can also occasionally do (11).

- (11) *löydyn uudelleen ja uudelleen*
find.MM.1SG again and again
pakonomaisesti tunkemassa ruokaa sisälleni
compulsively shove.INF.INE food.PART inside.ALL.1PX
'I find myself over and over again compulsively shoving food in my mouth'

This way of marking one's involuntary involvement in a certain situation is similar to the more common analytical construction *löytää itsensä* 'find oneself', that also encodes mirative meaning (12).

- (12) *Löysin itseni sairaalasta.*
find.PST.1SG self.1PX hospital.ELA
'I found myself at the hospital.'

Like in English and in other European languages (Basile 2023), the mirative strategy can also be used with concrete locations instead of abstract situations and states of mind. It is still debatable whether (13a) can be interpreted as a mirative-marked strategy. The polyfunctionality of the middle marker may also simply suggest a passive-resultative reading, but then again the question arises: why didn't the speaker choose to use a passive construction (e.g., *minut löydettiin* 1SG.ACC find.PASS.PST lit. 'I was found'). On the other hand, it is clear that (13b) does not express a mirative function.

(13a) *Minulle kerrottiin, että löydyin kadulta*
 1SG.ALL tell.PASS.PST CONJ find.MM.PST.1SG street.ABL
verissäni, josta minut vietiin sairaalaan
 blood.PL.INE.1PX RELP.ELA 1SG.ACC carry.PASS.PST hospital.ILL
ja sen jälkeen mielisairaalaan.
 and it.GEN after mental.hospital.ILL
 'I was told that I was found on the street covered in blood, then carried to the hospital and then to the mental hospital.'

(13b) *Viime tiistaina meillä oli meidän*
 last Tuesday.ESS 1pl.ADE be.PST.3SG 1SG.GEN
lukion musa-abien konsertti, jossa
 high.school.GEN music-major.PL.GEN concert REL
itse sitte löydyin toisinaan mikin,
 self then find.MM.PST.1SG occasionally microphone.GEN
pianon, kitaran tai basson takaa.
 piano.GEN guitar.GEN or bass.GEN behind.ELA
 'Last Tuesday we had our high school's music majors' concert, in occasion of which I could be found behind the microphone, the piano, the guitar, or the bass.'

While usually used with an relative-marked spatial argument, *löytyä* can occasionally also be used with illative-marked NPs (14a) or verbs in the third infinitive illative form (14b), which expresses movement towards rather than from. Both examples encode a mirative event which is strictly connected to the Internet environment.

(14a) *Löydyin tekstiin sattumalta ja ilahduin*
 find.MM.PST.1SG text.ILL accidentally and cheer.PST.1SG
että aiheesta käydään vilkasta keskustelua.
 CONJ topic.ELA run.PASS active.PART conversation.PART
 'I accidentally stumbled upon the text and was glad that the topic is being discussed actively.'

(14b) *hohoo, vasta nyt löydyin*
 INTERJ only now find.MM.PST.1SG
lukemaan sun mahtavia ekosi-huomioita!
 read.INF.ILL 2SG.GE amazing.PL.PART ecodaddy-remark.PL.PART
 'Oh, I am only now reading your amazing eco-daddy remarks!'

Mirative readings are also triggered when, pragmatically, speakers presuppose the high unlikelihood of the situation. While for many other examples it is debatable whether the verb retains its original meaning FIND, (15) seems unambiguously resultative and passive in meaning.

- (15) *Siksi olikin suoranainen ihme,*
 hence be.PST.EMPH absolute miracle
kun sinä löydýt.
 when 2SG find.MM.PST.2SG
 ‘For this reason it was an absolute miracle when you were found.’

4.4 Other Uses

Among the other sentence types in my sample, I found occurrences of *löytyä* that mark desiderative functions. The literature usually refers to desideratives as morphosyntactic devices that encode volitive modality. Notable is the case of the Japanese bound verbal suffix *-tai*, which conveys the meaning WANT (Izutani 2003). When the suffix *-tai* co-occurs with the nominative marking *-ga* on the NP, we have a desiderative construction. The Finnish multifunctional particle *-pA* is the closest relative to a morphological desiderative marker (VISK § 833-5; for other desiderative constructions in Finnish see VISK § 1659). Together with the conditional mood, it indicates wanting an unlikely event to take place. Similarly, the conditional mood in (16), together with the fundamentally mirative meaning encoded by the verb, marks a desiderative function.

- (16) *jos vaikka joku aamu yllättäisin itseni*
 if though some morning surprise.COND.1SG self.1PX
ja oikeesti löytyisin tuolta lenkkeilemästä
 and really find.MM.COND.1SG there.ABL jog.INF.ELA
klo 7 aamulla. :D
 hour 7 morning.ADE EMOJI
 ‘If only one morning I could surprise myself and actually be found jogging at 7 am.’

The form *et löydy* ‘you are not found’ is almost always (15 out of 17 times) used referring to business contexts. This type of utterance communicates the importance of the Internet presence for enterprises (17a,b).

- (17a) *Jos joku etsii vaikkapa autonhuoltoa*
 if someone search.3SG for.example car.maintenance.PART
Jyväskylätä, olet aikailla ulkona pelistä jos
 Jyväskylä.ELA be.2SG pretty.much out.ESS game.ELA if
et löydy
 NEG.2SG find.MM.CONNEG Google.INE
 ‘If someone is looking for, say, car maintenance services in Jyväskylä, you are going to be pretty much out of the game if you are not to be found on the first page of Google’s search results.’

(17b)	<i>eri</i>	<i>yhteisöihin</i>	<i>liittyvästä</i>	<i>kokonaisuudesta</i>	
	various	organisation.PL.ILL	related.ELA	whole.ELA	
	<i>yriytyksen</i>	<i>hakukonenäkyvyydessä</i>	<i>on</i>	<i>kysymys.</i>	
	company.GEN	search.engine.visibility.INE	BE.3SG	question	
	<i>Jos et löydy,</i>	<i>et</i>	<i>ole</i>	<i>olemassa.</i>	
	if NEG.2SG	find.MM.CONNEG	NEG.2SG	be.CONNEG	exist.INF.INE
	'...it is a matter of the company's search engine visibility for what concerns various organisations. If you are not to be found, you don't exist.'				

4.5 Competing Constructions

Since the locuphoric forms of the verb *löytyä* are expectedly marginal, speakers could prefer other constructions when talking about themselves and where they are located or to be found. Instead of using *löytyä*, which features only one argument (the subject of an intransitive clause, or S), competing constructions employ its transitive counterpart *löytää* 'to find', which features two arguments (the agent A and the patient P; for reference see, e.g., Haspelmath 2011). P, which corresponds to the object of a transitive verb, can be affected by case marking alternation (accusative-partitive in the case of personal pronouns, genitive-partitive in the case of other nouns), similarly to S (nominative-partitive) when *löytyä* is indexed for allophoric forms (Basile, Ivaska 2021). Competing constructions using *löytää* 'to find' may include Impersonal and Impersonal Passive constructions, where A is not expressed and P is susceptible to nominative-partitive alternation. Here, I will only consider locuphoric forms of P. In the Impersonal construction, the first/second person pronoun is followed by the verb indexed for 3SG (e.g., *minut/minua löytää* 1SG. ACC/1SG.PART find.3SG 'they find me, I am found'), while in the Impersonal Passive construction the only difference is the passive marking *-tAAn/-ttiin* on the verb, with basically no difference in meaning (e.g., *minut/minua löydetään/löydettiin* 1SG.ACC/1SG.PART find.PASS.PRS/find.PASS.PST 'I am found'). While I do not analyse all the possible variations of these constructions, I will briefly elaborate on two of them, namely the Impersonal constructions *minut löytää* and *minua löytää*, where the first person singular pronoun is indexed respectively for accusative and partitive case.

By performing a simple phrase search within the same corpus used above, I found that the accusative-marked construction *minut löytää* is far more common than its partitive-marked counterpart *minua löytää* (raw frequencies 910/10). It seems like the accusative-marked construction is often used similarly to locuphoric forms of the intransitive *löytyä*, with contexts ranging from Internet environments (18a) to expression of time-framed permanent presence (18b).

- (18a) *Sieltä minut löytää nimellä @evehei.*
 there.ABL 1SG.ACC find.3SG name.ADE USER
 'You can find me / I am to be found by the name @evehei.'
- (18b) *Vapaa-ajalla minut löytää usein koripallokentältä*
 free-time.ADE 1SG.ACC find.3SG often basketball.court.ABL
 'In my free time you can often find me / I am often to be found at the
 basketball court.'

Of the 10 occurrences of *minua löytää*, only 3 are relevant because used impersonally (19).

- (19a) *kyseisillä nimillä minua löytää pahraiten*
 in.question.PL.ADE name.PL.ADE 1SG.PART find.3SG best
 'Ideally, you can find me through the names in question.'
- (19b) *Harvemmin minua löytää kuitenkin valittamasta*
 rarely.COMP 1SG.PART find.3SG anyway.NEG complain.INF.ELA
musiikista mikä huoneessa soi.
 music.ELA RELP room.INE play.3SG
 'It is even rarer that you can find me complaining about the music playing
 in the room.'
- (19c) *Minua löytää DC:stä ja*
 1SG.part find.3SG DC:ELA and
yllä olevasta osoitteesta, Myrskylinnusta.
 above.ADE be.PTCP.ELA address.ELA Myrskylintu.ELA
 'I am to be found in DC and at the address above, Myrskylintu.'

It is interesting to notice that both accusative-marked and partitive-marked Impersonal constructions do not seem to encode mirative events. The Finnish Partitive case is often associated with changes in clause-level aspect, marking indefinite events or events with low control, as happens with certain verbs indicating feelings (e.g., *minua itkettää* 1SG.PART cry.CAUS.3SG 'I feel like crying') where the experiencer is marked for partitive case. In this type of construction there can also be a causer (A) marked for nominative case, rendering the experiencer a sort of P. The fact that low control can be associated with mirative events and that the Partitive can be used to mark this type of events could point toward the suitability of the Finnish Partitive case to mark mirativity in *minua löytää* constructions; however, this is not the case. It is also true that the *minua löytää* construction is too marginal in the sample to draw general conclusions.

5 Discussion

In a similar way to what Basile and Ivaska (2021) do for the allophoric forms of *löytyä*, it can be argued that locuphoric forms of this verb may also function as copulas, since they too can undergo semantic bleaching, at least to some degree. In fact, we saw that many of the sentences found in the corpus have the main function of conveying the permanent presence of the speaker/hearer, often in an Internet environment. Alongside competing constructions that use the verb *löytää* 'to find', which would perhaps constitute a valid alternative, one could expect to find the copula *olla* 'to be' as the most frequent and unmarked way of expressing the same meaning. The additional meaning provided by *löytyä*, that of prompting the addressee to look for the located referent, certainly cannot be ignored, but it is often the case that the main function this verb has is a locational function, similarly to the copula *olla*.

The data indicates that, as Basile and Ivaska (2021) argued, locuphoric forms of *löytyä* are not as productive as allophoric forms, in that the latter are used overall more, more widely, and in a variety of contexts (Basile, Ivaska 2021). This means that the allophoric forms are already established as locational strategies, because they indicate a link between a located referent and a location, just as copulas do. It could be the case that by analogy with allophoric forms of *löytyä*, its locuphoric forms have started spreading to similar functional domains and have hence started conveying locational meanings. We could say, perhaps speculatively, that this is the first step towards an enhanced productivity of locuphoric forms of *löytyä*, thanks to the increased use of its allophoric forms.

We also should not forget that a language is not an isolated system. Finnish is surrounded by Indo-European languages with which it has been in contact for a long time. Of these, two of the arguably more influential languages, Swedish and Russian, similarly present 'find'-based (invenitive) strategies to convey locational meaning (Swedish *att befinna sig* 'to find oneself/be located'; Russian *nachodit'sya* 'to be located'). These strategies are productive, and they might have played a role in helping their Finnish counterpart rise as a locational copula, both in its locuphoric and allophoric forms.

6 Conclusion

This essay discusses locuphoric forms of the Finnish locational copula *löytyä* 'to be found'. The corpus search confirms the claim by Basile and Ivaska (2021) about the marginality of use of these forms, as only about 500 examples were found in a corpus of more than 1 billion tokens. Most occurrences are indexed for first person singular, as speakers tend to refer to themselves in Internet forums and social media, in order to advertise their Internet presence on other platforms. This finding points toward the specificity of use of these forms in certain contexts, while in everyday conversation they are arguably nearly absent and substituted by other 'find'-based strategies or the copula *olla* 'to be'. Locuphoric uses of *löytyä* can also mark mirative events, similarly to analytical 'find'-based constructions such as *löytää itsensä* 'to find oneself'. Moreover, they can mark permanent versus temporary presence of referents at a certain location, as well as desiderative functions. The sample is too small to make claims about the productivity of such verbal forms, especially because they are not common in everyday speech. It is, however, big enough to raise the question about the possible reasons why these forms developed only so marginally, and what the future of this line of research holds. One possible development is a study that contrasts locuphoric forms of *löytyä*, which features a middle marker, with unmarked intransitive constructions featuring the verb *löytää* 'to find'. The preliminary considerations about the spreading by analogy of locational functions from allophoric to locuphoric forms of *löytyä* call for a more detailed diachronic study of the development of *löytyä* as a locational copula in the first place. This development might also be supported by language-contact hypotheses, since the use of 'find'-based strategies in locational constructions seems to be widespread in the languages of Europe, including Swedish and Russian. Furthermore, cross-linguistic evaluations about the productivity of 'find'-based (inventive) strategies are needed. Using cognitive and usage-based frameworks to study such constructions could shed light on whether there exist general tendencies that could explain the development of inherently dynamic verbs with meaning FIND into stative copulas in different languages.

Abbreviations and Notations

1	first person
2	second person
3	third person
ABE	abessive
ABL	ablative
ACC	accusative
ADE	adessive
ALL	allative
COMP	comparative
COND	conditional
CONJ	conjunction
CONNEG	connegative
ELA	elative
EMOJI	emoji
EMPH	emphatic
ENCL	enclitic
ESS	essive
GEN	genitive
ILL	illative
INE	inessive
INF	infinitive
INTERJ	interjection
ITER	iterative
MM	middle marker
NEG	negation
NOM	nominative
PART	partitive
PASS	passive
PL	plural
PST	past
PTCP	participle
PX	personal suffix
RELP	relative pronoun
SG	singular; USER – username.

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**Partitive Constructions and Partitive Elements
Within and Across Language Borders in Europe**

edited by Elvira Glaser, Petra Sleeman,
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Ukrainian Aspect and Object Case in ukTenTen The Partitive Genitive of Perfective Verbs and Mass Nouns

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Abstract The goal of our study is to establish the usage patterns of the Ukrainian partitive genitive and accusative objects based on a corpus of modern Ukrainian (ukTenTen 2020). This article focuses on differences between concrete and abstract mass nouns as objects of perfective-imperfective verb pairs. Our corpus study targets relations between the grammatical aspect of verbs, Aktionsart prefixes and the partitive genitive, which has been traditionally associated with perfectivity. We found that Ukrainian imperfective verbs occur regularly with partitive genitive objects, and that aspect does not influence the object case of abstract mass nouns.

Keywords Verb classes. Abstract nouns. DOM. Grammatical aspect. Incremental theme. Aspectual composition.

Summary 1 Introduction. – 2 The Ukrainian Case System and Intensional Verbs (the “Genitive Verbs”). – 3 Aspect in Ukrainian. – 4 Methods. – 4.1.1 The Selection of the Verbs for the Analysis. – 4.1.2 The Selection of Nouns for the Analysis. – 5 Results. – 6 Discussion. – 7 Summary.



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1 Introduction

Ukrainian grammars often contain references to ‘partitive genitive’ and ‘partiality’ in their discussions of object case and Aktionsart prefixes. We review these discussions in our essay, as we found Ukrainian aspect and object case an understudied topic in the current partitive related research. The goal of our study is to examine more precisely to what extent the Ukrainian genitive-accusative object case alternation of mass nouns interacts with the Ukrainian grammatical aspect. We will make forays in areas where variation has already been discovered about the partitive genitive, checking the findings against the data in the ukTenTen 2020 corpus.¹ The main focus is on the differences between the occurrences of the genitive in the following three sentences, (1)-(3).²

- (1) *Цього дня годиться зварити борщу з півнем.*
С'oho dnja hodyt'sja z-varyty boršč-u z pivnem.
this day good PREF-cook.PERF borscht-GEN with rooster.INST
‘On this day, it is good to cook borscht with a rooster.’

In Ukrainian grammars, ‘partitive genitive’ is a term for genitive case inflection with a specialised meaning of referring to quantities of referents, such as mass nouns as complements of perfective verbs. This phenomenon is illustrated with the ukTenTen corpus example (1), where *boršč* ‘borscht’, a concrete mass noun, appears in a sentence with a perfective verb and genitive case. Ukrainian has ‘grammatical aspect’, which is expressed in terms of ‘perfective’ and ‘imperfective’

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¹ For recent similar corpus studies on verb classes, see Jurkiewicz-Rohrbacher 2019; Laugalienė 2022; Vaiss 2022.

² Because of space restrictions, we notify the reader only here that translations of the citations in Ukrainian, Ukrainian examples, and the glosses of examples from previous sources are provided by Lesia Chaika and Natalia Lehka. The translations of the lists of the functions of the genitive case in Ukrainian (Šypovyč, Ihnatolja, Dančenko 2020, 199), groups of verbs used with the genitive (as in Mežov 2008, 5-6) and with the accusative (Pljušč 2005, 104-6) are given without providing the original texts, translated by Lesia Chaika and Natalia Lehka.

verb forms. Aspect is often discussed in terms of aspectual pairings in Ukrainian literature on the topic (Vyxovanec', Horodens'ka 2004; Pljušč 2005), and Slavic in general (Jakobson 1971; Timberlake 1975; Comrie 1976; Dahl 1985). This distinction will become relevant in this essay as well.

- (2) Прохолодний душ зранку додасть
Proxolodnyj duš zranku dodast'
 cool shower in.morning PREF.add.PERF
бадьорост-і і свіжості тілу.
bad'orost-i i svižosti tilu.
 vigour-GEN and freshness to.body
 'A cool shower in the morning will add vigour and freshness to the body.'

In example (2), the abstract mass noun *bad'orist'* 'vigour' appears in a sentence with a perfective verb and genitive case, so it can well be considered as an example of partitive genitive. A central question of this essay concerns the opposition between sentences in (2) and (3). In (3), the genitive of an abstract noun appears in a sentence with an imperfective verb.

- (3) Такий напій додає бадьорост-і, а
Takuj napij dodaje bad'orost-i a
 such drink PREF.add.IMPF vigour-GEN and
приготувати його надзвичайно просто.
pryhotovaty joho nadzvčajno prosto.
 prepare it extremely easy
 'Such a drink adds vigour, and it is extremely easy to prepare.'

We will discuss data that suggest that it is not completely unproblematic to assume a partitive genitive with abstract nouns, and that grammaticalisation may have affected groups of mass nouns differently depending on verb classes. The case alternation of *borsč* 'borscht' and other Ukrainian mass nouns in our sample that are concrete (*voda* 'water' and *cukor* 'sugar') follow the well-known Slavic pattern of partitive genitives, but the abstract nouns such as *bad'orist'* 'vigour' do not. Tentatively, we will discuss the variation and grammaticalisation patterns with genitive objects to two possible causes: verb classification and semantic differences between abstract versus concrete mass nouns.

The Ukrainian partitive genitive has parallels in many Baltic and Slavic languages (see Kiparsky 1998; Padučeva 1998; Chuikova 2012; 2021; Paykin 2014; Seržant 2014; Breu 2020). This linguistic phenomenon has increasingly been studied since Wierzbicka's work (1967).

Wierzbicka posed questions about the reasons for the different combinability of Polish perfective and imperfective verbs with measure and quantity object phrases, and she shows that imperfective Polish verbs do not occur with measure or quantity objects.³ Vyxovaneč' (1992, 120) describes two types of partitive genitive in Ukrainian. The first type is called the 'quantitative partitive', and it indicates incomplete coverage of the object by the action, like some portion of milk that is bought, as in (4a). The second type is the 'temporal partitive', which indicates the complete coverage of the object by the action, but with a limitation on this action in time, as in (4b).

(4)

- a. *Дівчина купила молока.*
Divčyna kupyła toloka.
girl bought.PERF milk.GEN
'The girl bought milk.' (understood as indefinite quantity: some milk)
- b. *Він позичив лопати.*
Vin rozyčuv lopaty.
he PREF.borrowed.PERF shovel.GEN
'He borrowed a shovel.'

We will concentrate on the quantitative partitive genitive as in (1) and (4a) in this article. We will typically use the term 'genitive' in this essay for the case inflection, as we examine more precisely to what extent the Ukrainian genitive case is an object case used for mass objects of perfective verbs (the quantitative partitive genitive).

Some notes on the terminology as used in this essay are in order, before discussing the sources and the corpus data. We apply the term 'aspect' for a wider range of phenomena that pertain to the properties of events or the linguistic means to express them. The adjective 'aspectual' is also understood here in a wider sense. It includes also what has been referred to as Aktionsart that emerges in derivation,

3 The case alternation of accusative and genitive in Slavic and Baltic bears resemblance to the Finnic accusative-partitive object case alternation as described in sources such as e.g., Kiparsky 1998; Klaas 1999; Metslang 2001; Huomo 2010; Lees 2015; Seržant 2015; or Larjavaara 2019. In Larsson 2001 and Luraghi, De Smit, Igartua 2020 it is argued that the partitive case in Finnic languages has arisen because of Baltic and Slavic influence. This essay cannot do justice to the vast Russian based literature on the phenomenon. The writing has been much influenced by the literature on Finnic and aspectual composition and discussions of partitive in Germanic (see, e.g., Sleeman, Giusti 2021 for recent literature, and a Czech-Dutch comparison, Vymazalová 2014). More on Polish aspectual composition can be found in Młynarczyk 2004 and Rozwadowska, Willim 2004; on Czech and several other Slavic languages, see Filip 1997.

to lexically encoded properties of verbs with their arguments, quantificational and referential properties of the arguments that relate to the properties of events, and some event-delimiting or event-modifying adjuncts. In various discussions of aspect, often, the term ‘incremental theme’ is used (Dowty 1991; Krifka 1992) for a thematically related object that increases, decreases, or changes in some other way in a series of a fixed scale during the event that the verb denotes. ‘Incremental theme verbs’ are verbs that denote the processing of their objects (themes) piecewise, portion by portion, like in eating (an apple), or adding (add more borscht onto a plate).⁴ ‘Intensional verbs’ are a working term we use as shorthand for various groups of verbs that impose special semantic or referential properties on their objects, which we will clarify in the present essay. Suffice it to say here that intensional verbs are frequently classified as genitive verbs in Ukrainian grammars (like verbs denoting wishes, desires, demands, or wanting something). As opposed to incremental theme verbs that encode a change, intensional verbs do not encode a change.

Note, however, that we use the term ‘aspect’ as shorthand for ‘grammatical aspect’ as in the opposition of *dodaty* PERF and *dodavaty* IMPF ‘add’ and *zvaryty* PERF and *varyty* IMPF ‘cook’. Verbs that appear in such perfective-imperfective pairs are called ‘aspectual pairs’ in this article. The two counterparts or members of aspectual pairs are called ‘partners’. Thus, examples of the ‘perfective partners’ of these grammatical aspectual pairs are *zvaryty* PERF and *dodaty* PERF, and the ‘imperfective partners’ are *varyty* IMPF and *dodavaty* IMPF. We use ‘Aktionsart’ for derivational verbal prefixation, which typically modifies the lexical meaning of the basic lexical verb, as in *do-davaty* IMPF ‘add’.⁵ Note that the word-for-word translations of the prefixed verbs do not always allow to distinguish the meaning of the derived and underived verb versions as easily as in *do-davaty* IMPF ‘add’ and *davaty* IMPF ‘give’. In these forms, the addition of *do-* resembles the English *to*, denoting a goal: ‘give (more) to’ is a kind of ‘add’. The German *zu-* or the Dutch *toe-* are also similar in combinations with verbs, and in a similar way, these combinations

4 Incremental theme is a central concept in discussing the temporal relationship between verbs and objects in the events they denote, also in Slavic (cf. Zuchewicz 2020). Event types as well as verbs and their arguments that can express these events are often discussed using the terminology of ‘aspectual classes’ or ‘Vendler classification’ of states, activities, accomplishment, and achievements following Vendler 1957, sometimes referred to as ‘actionality’.

5 The description here is simplified much and presented here for establishing basic terminology to operate with, not to take a stand in much debated issues. Perfectivity is distinguished from telicity, even though the phenomena they cover tend to overlap (cf. Borik 2006; Tamm 2007, see also these sources for testing for these phenomena). Also, the term ‘boundedness’ is frequently used to capture the semantic parallel between verbal aspect and object matter.

are seldom completely transparent. Such derivational pairs will not be referred to as ‘aspectual pairs’ but as ‘verb forms’, if they do not change the grammatical aspect of the verb. If it is relevant in the ensuing discussion to be precise, we use ‘grammatical aspect’ for perfectivity and imperfectivity. Since we regularly express thoughts about nouns and verbs in the same sentence, we frequently simplify the terminology in use. For the same reason of brevity, we frequently use ‘concrete’ and ‘abstract objects’ instead of “object complements that are in the singular number and denote concrete mass concepts and abstract mass concepts”.

Our goal is to describe, based on previous literature on Ukrainian, how the genitive of the object relates to the properties of the verbs (specifically, grammatical aspect, Aktionsart, and lexical semantics or verb classification) and the properties of the noun. Our further aim is to clarify the extent of the variation in Modern Ukrainian based on a corpus study (ukTenTen 2020). We explore the patterns and their cause with special focus on mass nouns that vary on the scale of concreteness and abstractness.

In the empirical corpus study, we focus on a selection of the accusative-genitive alternation with typically prefixed verbs with perfective and imperfective aspect, such as *do-daty* and *do-davaty* ‘add’ and *z-varyty* and *varyty* ‘cook’ in order to examine if the object case depends on the grammatical aspect, on the Aktionsart, and the quantificational properties of the object noun. We examine the following ‘testing factors’ that pertain to grammatical aspect, Aktionsart prefixes, and nominal quantification.

1) Grammatical aspect: Is there a distinction between perfective and imperfective verbs in terms of genitive and accusative object marking?

2) Verbal (aspectual or Aktionsart) prefixes and lexical semantics: Are there differences between verb prefixes that are related to partiality in previous literature on Ukrainian, such as *z-/s-*, *do-* and *na-*?

3) Nominal properties: Do concrete mass nouns and abstract mass nouns display differences in object case marking?

The essay is structured as follows. In Section 2, we discuss the genitive case in the Ukrainian case system and its functions, including the object function. In Section 3, we discuss the Ukrainian aspect. Section 4 describes the corpus method. Section 5 presents the results, Section 6 is a discussion, and Section 7 is a summary.

2 The Ukrainian Case System and Intensional Verbs (the “Genitive Verbs”)

Pljušč (2018, 120; 2005, 107) writes that the partitive genitive is (mostly) combined with perfective and not with imperfective verbs.⁶ Pljušč (2005, 107) also notes that, in this case, the noun is mass and has indefinite content, in the wording of Pljušč, “indefinite content and the measure of manifestation of materiality” (*neoznačenist’ vmistu, miry vyjavu rečovynnosti*). She notes that the accusative is also possible in these environments, with the condition of the object being completely covered by the action (5). There is no mention of bare plurals.

- (5) *Спечем картоплю при зорі і юшки наготуєм.*
Spjećem kartoplju pry zori i juški nahotujem.
 PREF.bake.PERF potato.ACC under star and soup prepare
 ‘We bake the potatoes in twilight/under the stars and prepare soup.’

Let it be briefly noted, before a more thorough discussion, that next to the partitive genitive, the objects in negated sentences and objects of a variety of verb classes can be in the genitive. The examples are taken from Pugh and Press’s work (1999, 98; 256), provided in (6).⁷

(6)

- a. *Він не продав стола.*
Vin ne prodav stola.
 he NEG PREF.sold.PERF table.GEN.SG
 ‘He did not sell a table.’
- b. *Ми чекали автобуса.*
My čekali avtobusa.
 we waited.1PL.IMPF bus.GEN.SG
 ‘We were waiting for a bus.’
- c. *Хочемо спокою/ миру.*
Hočeto spokoju/ myru.
 want.1PL.IMPF peace.GEN peace.GEN
 ‘We want peace.’

⁶ Pljušč (2018, 120) also refers to Kuznecova with year 1963 and page number 18, but this source is not found among Pljušč’s references. It has been noted (see Kiparsky 1998; Padučeva 1998; Chuikova 2012; 2021; Paykin 2014, among others) that the partitive genitive in Russian can combine also with imperfective verbs under some circumstances.

⁷ See Kryshevich 2010 for an account of the Ukrainian genitive of negation.

d.	<i>Ми чекали</i>	<i>п'ятий</i>	<i>автобус.</i>
	<i>Мы čekali</i>	<i>п"jatyj</i>	<i>avtobus.</i>
	we waited.1PL.IMPF	fifth[ACC.SG]	bus[ACC.SG]
	'We were waiting for bus no. 5.'		

In (6a), the direct object appears in the genitive case because of the negation in the sentence. In (6b) and (6c), the genitive case depends on the verbs such as *čekaty* 'wait' and *xotity* 'want'. However, if the object is specified, the accusative case is attested (6d). According to Pugh and Press (1999, 256) verbs of wanting, desiring, demanding and wishing are mostly used with genitive if the object is an abstract noun, a concept, unspecified, or unknown – we apply the terminology 'intensional verbs' to this group.⁸ In Ukrainian grammars, the genitive case is described as having various functions (Šypovyč, Ihnatolja, Dančenko 2020, 199). The genitive can appear on the following types of objects:

1. direct objects with verbs with the negation particle *ne* 'not', as in (6a);
2. direct objects that are quantitatively not specified or specified just partially (partitive genitive) (*kupyv medu* '(he) bought honey', *prynis soli* '(he) brought salt', *nabery vody* 'fill it with water');
3. with collective nouns (*zahir dobrovol'civ* 'a detachment of volunteers', *hurt divčat* 'a group of girls') and with nouns of measure (*centner borošna* 'centner of flour', *kilohram cukru* 'kilogram of sugar').

For more detailed information about the rest of the functions of the genitive, see Šypovyč, Ihnatolja, Dančenko (2020, 199).

Mežov (2008, 5-6) points out that there are seven groups of verbs where the nouns bearing the genitive case are direct objects without the partitive meaning:

1. verbs of desire, will, achievement of the result, e.g., *xotity* 'want', *bažaty* 'wish', *volity* 'prefer', *vymahaty* 'demand', *domahatysja* 'aspire', *dosjahaty* 'achieve', *žadaty* 'desire', *potrebuvaty* 'need', *prahnuty* 'strive for';
2. verbs of avoiding an object, e.g., *bojatsja* 'fear, be afraid of', *ljakatsja* 'get scared', *osterihatysja* 'beware', *storonytysja* 'avoid', *straxatsja* 'fear', *unykaty* 'avoid', *curatysja* 'shun' etc);

⁸ As our goal is to review how traditional Ukrainian grammars describe the partitive genitive related phenomena and not to improve the descriptions, we occasionally indicate in a footnote if a Ukrainian source does not specify useful information for our later discussion or if a reviewer has suggested improvements of the descriptions.

3. verbs of depriving of an object, e.g., *pozbavljaty* 'deprive', *zrikatysja* 'renounce';
4. verbs of expecting an object, e.g., *čekaty* 'wait', *očikuvaty* 'expect, await', *dočekatysja* 'wait until (something)', *ždaty* 'wait';
5. verbs of relation to an object, e.g., *dotrymuvatysja* 'follow, observe (e.g., a rule)', *trymatysja* 'persist; hold on to, clutch', *torkatysja* 'touch';
6. verbs of learning, acquiring an object, e.g., *učytysja* 'learn', *navčatysja* 'study';
7. verbs of sufficient coverage of an object (the word *enough* appears frequently if these verbs are translated), e.g., *napytysja* 'drink enough, get drunk', *najistysja* 'eat enough/be full', *nasluxatysja* 'listen enough', *nadyvytysja* 'watch enough (of something)'.

Pljušč (2005, 104-6) also describes groups of verbs that take accusative objects. She claims that the semantics of their objects varies because of the semantics of the respective verbs, and she distinguishes the following verb groups:

1. verbs with the semantics of physical action (e.g., *budувaty mist* 'build a bridge'). They are used with inanimate objects and sometimes with animates in the accusative case. If an accusative object is used with an imperfective verb, it can express an external object fully covered by the action. If it is used with a perfective verb, then it expresses a "resultative object";
2. verbs with the semantics of movement in space. They are used with abstract nouns, animates, or nouns denoting objects (things) (e.g., *pryvezty vuhilja (učniv)* 'bring coal (students)');
3. verbs with the semantics of speech. With these verbs, the accusative case marks a specific conversation object or an abstract object that must be specified by the addressee (e.g., *rozkazaty kazku* 'tell a fairytale', *opysaty portret* 'describe the portrait', *sxarakteryzuvaty heroja* 'describe the character');
4. verbs with the semantics of an intellectual activity. In this case, the object in the accusative case can be an abstract noun, sometimes a specific noun, or a noun denoting a person or another animate (e.g., *tvoryty čudo* 'create a miracle', *doslidyty problemu* 'study the problem', *učyty virš* 'learn a poem');
5. verbs with the semantics of an internal condition of a person, expressing feelings. Such verbs are used with abstract nouns in the accusative case. This meaning type is primarily characteristic of the accusative objects that are expressed by an abstract noun (e.g., *cinuvaty spokij* 'appreciate peace', *ljubyty krasu* 'love beauty', *šanutaty starist'* 'respect old age').

According to Vyxovanec' (1992, 119), the accusative is the main direct object case used in modern Ukrainian; however, the genitive case can also mark a direct object (Vyxovanec' 1992, 120). One of the features that distinguishes the accusative case from the genitive in Ukrainian is partitivity. While the genitive case indicates the partitive meaning of the object, the accusative is not compatible with that meaning. Vyxovanec' (1992, 120) describes two types of partitive genitive. Vyxovanec' (1992, 120) calls them quantitative and temporal uses of the genitive; see example (4). Nouns that can denote partiality or divisibility (*častkovist' abo podil'nist'*) in the genitive usually refer to substances (materials), for instance, *moloko* 'milk', *voda* 'water', *xlib* 'bread', *m"jaso* 'meat', *ryba* 'fish', *sil'* 'salt' (Vyxovanec' 1992, 120). Ševčuk (2010, 131) extends the number of nouns that are used in the partitive genitive case and divides them into classes. Ševčuk (2010, 131) as well as Vyxovanec' (1992) specify that the partitive genitive can mark nouns denoting various materials, substances, man-made items or products of natural origin, such as metals (*bronza* 'bronze', *sriblo* 'silver', *zalizo* 'iron'), chemical elements (*kysen'* 'oxygen', *voden'* 'hydrogen'), liquids (*voda* 'water', *olija* 'oil', *moloko* 'milk'), fabrics (*šovk* 'silk', *polotno* 'canvas', *sytec* 'chintz'), food (*borsč* 'borscht', *kava* 'coffee', *sil'* 'salt', *xlib* 'bread'), medicines (*aspiryn* 'aspirin', *cytramon* 'citramon'), plants (*morkva* 'carrot', *kavun* 'watermelon', *kalyna* 'viburnum'), materials (*visk* 'wax', *pisok* 'sand', *cement* 'cement'). Pljušč (2005, 107) also mentions that the partitive genitive appears with nouns of materials and substances such as metal, loose, liquid, and gaseous items, drinks, or food etc.

Pljušč (2005, 82) gives an explanation about Ukrainian abstract nouns: "Nouns with an abstract meaning include generalisations of objectified concepts - qualities, properties, actions, processes; for example, diligence, kindness, blueness, learning, acceleration, dimension, flight". She points out that a sizable number of abstract nouns have only a singular form and some of them have only a plural form (e.g., *košty* 'money', *zaručyny* 'engagement', *vybory* 'elections'). Abstract nouns are usually formed based on adjectives or verbs and by means of suffixes such as *-ist'*, *-ot(a)*, *-ann(ja)*, *-enn(ja)*, etc. (Pljušč 2005, 82). Pljušč (2005, 82) also mentions that abstract nouns can be used with an indirect meaning. In that case, they lose or gain in their abstractness (e.g., *polum"ja v peči* 'flame in the cooker' and *polum"ja sercja* 'flame of the heart', *raptovyj vyxor* 'sudden whirlwind' and *vyxor dumok* 'whirlwind of thoughts'). Therefore, there is no strict division of nouns by concreteness and abstractness.

This essay focuses on singular nouns only. To render the examples easily readable for a non-Ukrainian speaking reader, a brief note on the Ukrainian nominal paradigms is in order. Ukrainian nouns have cases, numbers, and genders. There is a feminine, masculine, neutral and common gender. In the Ukrainian case paradigm, there are

seven cases: nominative, genitive, dative, accusative, instrumental, locative and vocative. There are also four declensions. Nouns of the same gender can still receive diverging endings if they belong to different declensions, which means that the ending of a form must be seen in its place in the case paradigm. The ending that sounds identical can fill a different function, for instance, *-y*, *-i*, *-a* or *-u* in different genders, numbers, and declension classes. For instance, the noun *vodu* with the ending *-u* is accusative as it is feminine, while the noun *boršču* with the ending *-u* is genitive as it is masculine. In our study, in combinations with perfective and imperfective verbs, we have used nouns such as *voda* ‘water’, *bad’orist* ‘vigour’, *boršč* ‘borscht’, *cukor* ‘sugar’, *optymizm* ‘optimism’, *vpevnenist* ‘confidence’ and *dosvid* ‘experience’. All these nouns have genitive and accusative forms, and semantically they are mass nouns; see Section 4 for more details on the principles for selection. For our further discussion, it is relevant to note the semantic distinction between count and non-count nouns. Non-count nouns are typically mass nouns, and mass nouns can be concrete and abstract. Nouns have two numbers, singular and plural, and it is relevant that not all abstract nouns are also mass nouns: they can be counted and pluralised.

In the sources above, which served as our basis for corpus study, we found less material on abstract mass nouns than would have been necessary for a more thorough discussion of partitive genitive objects in Ukrainian. The question of why concrete mass nouns and abstract mass nouns display differences in object case marking was not explicitly addressed in the Ukrainian sources we consulted. We did not find discussions of groups of abstract mass nouns concerning their semantic groups or their status as instances of partitive genitive. However, abstract mass nouns were occasionally used in examples illustrating other points about the structure of Ukrainian, and we have included many of them in our literature review and considered them in the discussion of the results of our empirical corpus study.

3 Aspect in Ukrainian

Ukrainian verbal categories are tense, mood and aspect.⁹ This essay considers only aspect. The category of aspect is inherent to all Ukrainian verbs. The category of aspect allows the expression of actions and states as whole (*cilisnist*’) and not whole (*necilisnist*’). Ukrainian grammars distinguish two main types of verbs: perfective verbs

⁹ There are also categories of number, gender and person, but according to Vyxovanec’ and Horodens’ka (2004, 223), these categories are not particular verbal categories, since they belong to other parts of speech as well.

(*dokonani dijeslova*), which express a completed action, and imperfective verbs (*nedokonani dijeslova*), which express action in progress (Vyxovanec', Horodens'ka 2004, 225).¹⁰ Ukrainian sources describe the formation of perfective and imperfective verbs by the morphological processes of prefixation or suffixation. Typically, perfective verbs are formed based on imperfective verbs, by prefixes. This process is called "perfectivisation". Imperfective verbs can be formed based on perfective verbs by suffixes. This process is called "imperfectivisation" (Vyxovanec', Horodens'ka 2004, 225). Such morphologically related perfective and imperfective verbs form an aspectual pair. In our essay, we illustrate the following pairs of aspectual verbs, among others: *dodaty* (PERF) – *dodavaty* (IMPF) 'add', *zvaryty* (PERF) – *varyty* (IMPF) 'cook', *nabuty* (PERF) – *nabuvaty* (IMPF) 'gain', *dovaryty* (PERF) – *dovarjuvaty* (IMPF), *navaryty* (PERF) – *navarjuvaty* (IMPF), and *pobažaty* (PERF) – *bažaty* (IMPF). However, Vyxovanec' and Horodens'ka (2004, 225) point out that not all verbs form aspectual pairs. To form an aspectual pair, verbs must have an identical lexical meaning. Often, however, perfective verbs that are formed based on an imperfective verb via prefixation do not only change the grammatical aspect but also the lexical meaning of the verb.¹¹ Imperfective verbs that denote actions, processes and states in progress that evolve towards a boundary readily form an aspectual pair with perfective verbs that denote the completeness of action, progress, or state, as in PERF: *zvaryty* and IMPF: *varyty* 'cook'. Imperfective verbs whose meaning does not evolve towards a boundary do not form an aspectual pair with perfective verbs, because the action, progress or state cannot be completed, as in *bihaty* 'run', *xodyty* 'walk', *smijatsja* 'laugh', *plavaty* 'swim' (Vyxovanec', Horodens'ka 2004, 225).

10 This corresponds to what is referred to in Verkuyl's (1993) terms as a distinction of durative and terminative or, in other sources, to unbounded and bounded, atelic and telic (e.g., Dahl 1985; Krifka 1992). However, the Ukrainian aspect is grammatical, which means that typically verbal aspect does not contribute to the clausal aspect compositionally as it does in the aspectual systems of typically discussed languages (which are Germanic). The Ukrainian aspect typically does not pertain to the internal structure of events composed of each other and in combination with the properties of internal arguments (e.g., van Hout 2000), but to the viewpoint on the situation or event. The viewpoint is taken either from the outside (on the event or a situation as a whole) or from the inside (from the internal course of the event or situation), as described, for instance, in Comrie 1976, Dahl 1984 and 1985, and Smith 1991. In sum, we do not expect the properties of the object to influence the aspectual semantics in a clause. There is one more type of verbs, those that can express both perfective and imperfective meaning. We do not discuss it here, because we did not examine this verb type in our corpus study, leaving it for further research.

11 Vyxovanec' and Horodens'ka (2004) do not explicate aspectual pairs with the verb we use, 'cook'. Our rendering of their description applied to 'cook' is that the imperfective *varyty* 'cook' can be perfectivised as *z-varyty* with the prefix *z-* without a change in the lexical meaning. This is thus an aspectual pair. The verb can be prefixed by an Aktionsart prefix, as in *perevaryty* with the prefix *pere-*, rendering an extra lexical meaning of 'boil too much, overcook' to the verb. This is not considered as an aspectual pair.

In our essay, we focus mainly on verbs that form an aspectual pair. Vyxovanec' and Horodens'ka (2004, 227) claim that the number of aspectual pairs in Ukrainian is small. Imperfective verbs that are formed based on perfective verbs by means of suffixation preserve the identical lexical meaning and differ from the perfective verb only in aspect, while perfective verbs that are formed based on imperfective verbs by means of prefixation can change the verb's lexical meaning. The examples in Table 1 based on how Macjuk (2013, 169) distinguishes the ways of formation of aspectual verb pairs.

Table 1 The ways of forming Ukrainian aspectual verbs

Formation	Imperfective form	Perfective form
alternation of suffixes	<i>kup-uva(ty)</i> 'buy'; <i>dopys-uva(ty)</i> 'finish writing'	<i>kup-y(ty)</i> 'buy'; <i>dopys-a(ty)</i> 'finish writing'
change of the place of stress	<i>sklykáty</i> 'convene'; <i>zasypáty</i> 'fill up'	<i>sklýkаты</i> 'convene'; <i>zasýpaty</i> 'fill up'
adding prefixes, most often <i>z-</i> (<i>s-</i>), <i>za-</i> , <i>na-</i> , <i>po-</i> , <i>pry-</i> , <i>pro-</i>	<i>pysaty</i> 'write'; <i>v"januty</i> 'wither'	<i>na-pysaty</i> 'write'; <i>zi-v"januty</i> 'wither'
adding prefixes and changing suffixes at the same time	<i>pad-a(ty)</i> 'fall'; <i>viš-a(ty)</i> 'hang'	<i>v-past(ty)</i> 'fall'; <i>po-vis-y(ty)</i> 'hang'
adding prefixes to verbs with a different but semantically similar root	<i>braty</i> 'take'; <i>govoryty</i> 'talk'	<i>v-zjaty</i> 'take'; <i>s-kazaty</i> 'talk'
alternation of the sounds in the root	<i>zbyraty</i> 'collect'; <i>nazyvaty</i> 'name'; <i>posylaty</i> 'send'	<i>zibraty</i> 'collect'; <i>nazvaty</i> 'name'; <i>poslaty</i> 'send'
a simultaneous alternation of the sounds in the root and a change in the suffixes	<i>zmitaty</i> 'sweep away'	<i>zmesty</i> 'sweep away'

Vyxovanec' and Horodens'ka (2004, 227) specify that the main suffixes that are used for imperfectivisation are the suffixes *-uva-*, *-ovuva-*, *-va-* and *-a-*. They also emphasise that only imperfective verbs that evolve towards a boundary can form an aspectual pair with perfective verbs that are built up via prefixation. Such imperfective verbs tend to include verbs of concrete physical actions or types of intellectual activities (Vyxovanec', Horodens'ka 2004, 227-8). See also Vyxovanec' and Horodens'ka (2004, 228-32), who discuss the formation of imperfective and perfective verbs in more detail than Macjuk, whose aim with aspect verbs is L2 instruction.

Since in our corpus study we used mostly perfective verbs such as *dodaty* 'add', *navaryty* 'cook any amount' and *zvaryty* 'cook', we

focus on the prefixes *do-*, *na-* and *z-* as described by Vyxovanec', Horodens'ka (2004, 228). They claim that the prefixes *z-/s-* (and *po-*) are the main prefixes that form perfective verbs without creating new lexical meanings.¹² Even if they are, the meanings of imperfectivised verbs are identical to the meaning of the respective primary imperfective verbs without prefixes (Vyxovanec', Horodens'ka 2004, 228). So, we can state that the verb *zvaryty* PERF 'cook' in our examples expresses only completed action - 'cooked borscht' - in contrast to its aspectual partner in the pair, *varyty* IMPF 'cook', which denotes a process of cooking. The prefixes *na-* and *za-* may also be used to form the aspectual, perfective partner from an imperfective verb, but not as often as with *z-/s-* (and *po-*). Unfortunately, the source (Vyxovanec', Horodens'ka 2004) does not contain precise information about the prefix *do-*, which is the Aktionsart prefix of the verbs *dodavaty* 'add' and *dodaty* 'add' from our corpus data. However, Ševčuk (2010, 129) notes that "[t]he prefixes *v-(u-)*, *vy-*, *vid-*, *do-*, *z-(s-)*, *na-*, *nad-*, *pere-*, *pid-*, *po-*, *pry-*, *pro-* can give the verb an additional meaning of partiality, limitation of action in time". Vyxovanec' and Horodens'ka (2004, 229-30) also point out the partiality related to time in the semantics of these prefixes and elaborate on each of these prefixes. Ševčuk (2010, 129) specifies that "[p]refixed verbs (with prefixes *v-(u-)*, *vy-*, *vid-*, *do-*, *z-(s-)*, *na-*, *nad-*, *pere-*, *pid-*, *po-*, *pry-*, *pro-*) can be combined with a noun in the genitive and accusative cases. [...] Verbs of the perfective form with the prefix *na-* function in combination with nouns in the genitive case". Vyxovanec' (1992, 120) also mentions that the quantitative partitive genitive can be used with verbs with the prefixes *v-(u-)*, *vy-*, *vid-*, *do-*, *z-(s-)*, *na-*, *nad-*, *pere-*, *pid-*, *po-*, *pry-*, and *pro-*.

These relevant pointers based on the literature lead us to our corpus testing factors 1 and 2, as identified in the Introduction. In sum, the reviewed Ukrainian grammars and studies suggest that genitive objects appear with the perfective and not with the imperfective verbs, and that the appearance of 'quantitative partitive genitive' may depend on the nature of the prefixes.¹³

12 Usually, imperfective verbs are not formed on the basis of perfective verbs with the prefixes *z-/s-*. From an imperfective verb such as *varyty* IMPF 'cook', Ukrainian can rather productively create a perfective verb *zvaryty* PERF 'cook'. The verb *zvaryty* PERF 'cook' cannot be further productively imperfectivised by aspectual suffixation. There is a verb that is imperfectivised on the base of the perfective verb, *zvarjuvaty*; however, it has a lexicalised semantics: 'weld'. In rare cases, perfective verbs with the prefix *z-/s-* can form an imperfective verb by suffixation. In these cases, the imperfective verbs have the same lexical meaning as the imperfective verbs without the prefix; for example: *nyščyty* IMPF 1 - *znyščyty* PERF - *znyščuvaty* IMPF 2 'destroy'. According to the authors (Vyxovanec', Horodens'ka 2004, 228), the imperfective verbs *nyščyty* and *znyščuvaty* have an identical lexical meaning.

13 For a more formal approach to aspect and prefixation in Czech and several other Slavic languages, see Filip 2003.

4 Methods

We conducted a corpus search of accusative and partitive genitive mass noun objects to determine their occurrence with aspectual pairs in Ukrainian. The extended results are available online, in a data sheet (osf.io/qcnx8).

We used Sketch Engine for our sample, more specifically, the “ukTenTen”, the corpus of Ukrainian from 2020. The reason for choosing Sketch Engine (Kilgarriff et al. 2004; 2014) for the empirical study is that it is a large database system that contains 600 corpora in more than 90 languages. It is a tool for linguists that helps to understand how different languages work. Sketch Engine allows for conducting analyses of texts and shows what is typical, what is uncommon, and what is not attested in languages. It enables finding examples of usage of a word or a phrase, collocations, or patterns and in establishing variation.

The Ukrainian corpus ukTenTen20 contains texts that were collected on the Internet, and it is a part of the TenTen corpus family, which consists of web corpora that were created using identical principles and methods. It has a target size of 10+ billion words. The data for the Ukrainian Web Corpus 2020 were taken from texts from May 2014 to July-August 2020. The corpora contain 2.5+ billion words and more than 3.2 billion tokens. There are four subcorpora in the corpus: Ukrainian TLD.ua, Ukrainian Web 2014, Ukrainian Web 2020 and Ukrainian Wikipedia 2020.

4.1 The Selection of the Verb-Noun Combinations for the Analysis

In Section 3, we searched in earlier literature what is established about Ukrainian verb classes that have alternating object cases. Then we searched what earlier sources had specified about the semantic properties of the object types that can undergo case alternation. We relied on the sources described in Sections 1-3 that contained Ukrainian verb and noun lists with their description. In those sources, we identified the properties of verbs and objects that were classified according to their role in the choice of the object case (Timberlake 1975; Vyxovanec’ 1992; Pugh, Press 1999; Vyxovanec’, Horodens’ka 2004; Pljušč 2005; Mežov 2008; Ševčuk 2010; Pljušč 2018; Šypovyč, Ihnatolja, Dančenko 2020).

More specifically, concerning the ‘aspectual’ testing factor 1 for the corpus study, one relevant point raised in previous literature concerns the distinction between perfective and imperfective: the Ukrainian partitive genitive is known to appear with perfective and not with imperfective verbs (Pljušč 2005, 107; 2018, 120). For the

'Aktionsart' testing factor 2, we mainly followed the lead in Ševčuk (2010, 129), who mentions prefixes that add the additional meaning of partiality (*častkovist'*) and boundedness or delimitedness of the action in time (*obmežennja diji u časi*). Also, Vyxovanec' (1992, 120) discusses prefixes related to partitivity. These sources determined how we chose the prefixes that are related to partitivity in previous literature, *z-/s-*, *do-* and *na-*. The literature on the exact semantic constraints on the partitive genitive nouns was, however, scarce. We followed Ševčuk (2010) for finding concrete mass nouns. Although Pljušč (2005) does not write about partitive genitives with abstract nouns, we use the discussion in Pljušč (2005, 82) to explore the testing factor 3, 'partitive genitives factor' about the case alternation on mass nouns. The ensuing subsections detail the choice of testing materials.

4.1.1 The Selection of the Verbs for the Analysis

We deselected verbs that do not have object genitive-accusative case alternation: verbs that have only genitives as their object markers (intensional verbs). We also deselected verbs listed as verbs with only accusative objects in the verb lists. We excluded reflexive verbs. The verbs without an aspectual partner, those without a clear and transparent aspectual pair, were also excluded. Only verbs that formed clear aspectual pairs as represented in Table 1 – either with a suffix, prefix or other ways as specified in earlier Ukrainian sources – were chosen.

We searched for verbs with a general meaning that can also form a combination with a prefix. We were also searching if there were pairs formed with a more general perfectivising prefix, which is in some sources – but not in traditional grammars – referred to as 'empty' (such as *z-/s-*). In those pairs, we also searched for the perfective verb with another prefix (such as *po-*, *pere-*, *do-* or *na-*).

In terms of prefixation, we excluded semantically opaque combinations, thus resulting in a specialised lexicalised meaning; this restriction excluded many verbs from the selection. The selected combinations of the verbs and the prefixes were transparent in meaning, with no special lexical restrictions on the objects. We found the combinations with the prefixes *na-* and *do-* suitable, as they are mentioned as prefixes with the ability to function as quantifiers of mass objects. We aimed at verbs that allow 'portioning' their objects, in other words, mostly incremental theme verbs. These verbs allow combinations with mass nouns. Specifically for corpus testing, they were selected and categorised according to their ability to combine or not to combine with mass nouns. Additionally, the verbs were selected and classified as either allowing concrete themes as objects (such as *varyty* 'cook'), abstract ones (such as *nabuty* 'gain, acquire'), or both (such as *dodaty* 'add'). A pair of intensional verbs, the invariantly genitive-object verbs

pobažaty PERF, *bažaty* IMPF ‘wish’, were added in the corpus search and elaborated on briefly in the discussion section for comparison.¹⁴ Table 2 summarises the grammatical aspect and prefix type of the verbs in the study, as well as the type of mass object they allow.

Table 2 The selected verbs and the type of mass object they combine with

Verb	Aspect	Prefix	Suffix	Object
<i>dodaty</i> ‘add’	PERF	<i>do-</i>		abstract or concrete
<i>dodavaty</i> ‘add’	IMPF	<i>do-</i>	<i>-va-</i>	abstract or concrete
<i>zvaryty</i> ‘cook’	PERF	<i>z-</i>		concrete
<i>varyty</i> ‘cook’	IMPF			concrete
<i>nabuty</i> ‘gain’	PERF	<i>na-</i>		abstract
<i>nabuvaty</i> ‘gain’	IMPF	<i>na-</i>	<i>-va-</i>	abstract
<i>navaryty</i> ‘cook (any amount)’	PERF	<i>na-</i>		concrete
<i>navarjuvaty</i> ‘cook (any amount)’	IMPF	<i>na-</i>	<i>-juva-</i>	concrete
<i>dovaryty</i> ‘cook (till done)’	PERF	<i>do-</i>		concrete
<i>dovarjuvaty</i> ‘cook (till done)’	IMPF	<i>do-</i>	<i>-juva-</i>	concrete
<i>pobažaty</i> ‘wish’	PERF	<i>po-</i>		abstract or concrete
<i>bažaty</i> ‘wish’	IMPF			abstract or concrete

In this way, the corpus search was set up like an experiment to examine the effect of various aspectual properties of the verbs and the semantic properties of the mass nouns on the object case.

¹⁴ This pair was added for additional information on intensional verbs. Even if the pair is not recorded as an aspectual pair in the dictionary, we regard it as a pair based on the description of *po-* in Vyxovanec’ and Horodens’ka (2004, 228). The discussion section will include a small-scale study on *bojatsja* ‘be afraid of, fear’ with the objects ‘dog’ and ‘darkness’.

4.1.2 The Selection of Nouns for the Analysis

It has been established in literature that partitive genitive objects emerge with mass nouns. Within the semantic group of mass nouns, we searched for nouns that were lexical-semantically and pragmatically plausible object complements for the chosen verbs. The choice is based on Pljušč (2005) and Ševčuk (2010), who proposed classes of nouns prone to appear with genitive partitive, such as metals, chemicals, liquids, food, medicines, plants, and materials. The concrete mass nouns ‘sugar’, ‘water’, and ‘borscht’ were selected.

In the selection process, as with verbs, both semantic and morphological factors played a role. All count nouns were deselected, either a) concrete (or predominantly concrete, ‘table’, ‘pillow’), b) ambiguously concrete or abstract, which would be dependent on their context or individual interpretation, e.g., ‘school’ as a building or institution, or c) abstract, such as ‘number’ or ‘idea’. Nouns with frequent metaphorical extensions and mass/concrete metonymies (e.g., democracy: the western democracies) were excluded.

We checked if abstract mass nouns deviate from concrete mass nouns in their case alternation behaviour. Thus, we hypothesised that there is variation among mass nouns on the concrete-abstract axis. While we selected *voda* ‘water’, *cukor* ‘sugar’ and *boršč* ‘borscht’ as Ukrainian examples of concrete mass noun objects, we complemented them with *bad’orist* ‘vigour’, *optymizm* ‘optimism’, *vpevnenist* ‘confidence’ and *dosvid* ‘experience’ for abstract mass nouns. In the MRC Psycholinguistic Database,¹⁵ the selected concrete nouns belong to the most concrete segment (600-700) on the concreteness rating scale that ranges from 100 to 700. *Borscht* is not included in the database that contains only words in English; for *boršč* we checked the rating scale for the hypernym *soup*. The abstract mass nouns ‘optimism’, ‘vigour’, ‘experience’, and ‘confidence’ are in the suitable range of rating in the database.¹⁶ The Ukrainian words or concepts of optimism, experience, and confidence had clear English translational counterparts, English words, in the database. The noun *bad’orist* ‘vigour’ does not have a precise translation that would be frequent enough to appear in the rating. Therefore, we considered its synonyms, hypernyms, and words perceived as similar in abstractness as proof of its place among the most abstract group: these English

¹⁵ MRC Psycholinguistic Database: https://websites.psychology.uwa.edu.au/school/MRCDatabase/uwa_mrc.htm.

¹⁶ The least concrete and most abstract segment contains mainly function words (but not only, e.g., ‘from’, ‘of’, ‘so’, ‘for’, ‘therefore’, ‘were’, ‘impossible’), so our choice of abstract nouns belongs to the second most abstract segment of the MRC abstractness/concreteness scale, that of 200-300.

words were ‘attitude’, ‘behaviour’, ‘distraction’, ‘enthusiasm’, ‘excitement’, ‘impulse’, and ‘temptation’.

Morphologically, nouns with clearly distinguishable genitive and accusative masculine and feminine forms were selected.¹⁷ Table 3 presents the accusative and genitive case forms of the mass nouns of the sample.

Table 3 Accusative and genitive case forms of the mass nouns of the sample

Noun, Translation	Semantic class	Gender m/f	Genitive	Accusative
<i>cukor</i> ‘sugar’	concrete	M	<i>cukr-u</i>	<i>cukor</i>
<i>voda</i> ‘water’	concrete	F	<i>vod-y</i>	<i>vod-u</i>
<i>boršč</i> ‘borscht’	concrete	M	<i>boršč-u</i>	<i>boršč</i>
<i>optymizm</i> ‘optimism’	abstract	M	<i>optymizm-u</i>	<i>optymizm</i>
<i>bad’orist</i> ‘vigour’	abstract	F	<i>bad’orost-i</i>	<i>bad’orist</i>
<i>vpevnenist</i> ‘confidence’	abstract	F	<i>vpevnenost-i</i>	<i>vpevnenist</i>
<i>dosvid</i> ‘experience’	abstract	M	<i>dosvid-u</i>	<i>dosvid</i>

In order to obtain a balanced set of features to analyse, we searched for additional verb-object combinations to complement the verb sets *dodaty* PERF ‘add’ and *varyty* IMPF ‘cook’, which were the most suitable for our study. The verbs are included in Table 2. Not all chosen suitable combinations, however, yielded abundant instances of the combinations for conducting comparisons of all possible features of verbs and objects. We have searched for *nabu(va)ty optymizm/bad’orist* ‘gain optimism/vigour’, and *doda(va)ty dosvid* ‘add experience’, but we did not find any examples for the perfective and imperfective combinations with these objects. We note it here and exclude them from the tables, figures, and most of the later discussions.

4.2 Corpus Search

This Section is included for those readers who are interested in replicating the study to validate the results, or for those readers who wish to complement the dataset with comparable data collected with an identical methodology, for Ukrainian or other languages.

¹⁷ One may wonder why plurals, although semantically similar to mass nouns in cumulativity, were excluded. Partly, they were excluded on morphological grounds (singular and plural may have ambiguous forms in accusative or genitive), partly on semantic grounds. Plurals are more difficult to control for animacy, which is a well-known factor in the languages of the world as well as in Ukrainian with respect to mapping to case (cf. Neidle 1988).

We searched with the Word Sketch function for the verb-object collocations and entered them in an Excel table. We added all examples if the number of occurrences was less than 500 and coded them for their genitive or accusative objects manually. When there were more occurrences than 500, we used the function of ‘Shuffle Sample’ to create a representative sub-selection of 500 occurrences with Sketch Engine.¹⁸ In all cases, we deselected examples that were instances of doublets (identical sentences with identical context but found on different websites), results of machine translation, negation and quantifiers as attested factors influencing or determining case in Ukrainian. Also, all measure genitives (‘a pot of borscht’) were removed, as they are similar to quantifiers. We also removed other instances where the target noun was actually a complement within another phrase (e.g., in a complex noun phrase) and not the object of the verb. We also removed passives. In some cases, nominal apposition with a superordinate term appeared, such as ‘I cooked soup – borscht’, and we removed such cases. We also removed sentences that turned out to be misclassifications of verb-object combinations, such instances with inversion where ‘water’ was a subject, not an object, and used in the nominative case. We composed a table where we counted the genitives and accusatives with perfective versus imperfective verbs. The result table [tab. 4] and the corresponding figures [figs 1-9, 11] are presented in Section 5. Additional combinations of features are found to support the discussion in Section 6 [figs 12-13].

The number of sentences with accusative and genitive objects that will be presented in the results section is typically based on the shuffle function sampling, which can be considered representative for testing the given combination. However, as a result of the manual exclusion of the unsuitable sentences (negation, quantifiers, etc), the number of manually analysed sentences is mostly less than 500.

The following passages detail the reasons for exclusion, with the corresponding lists of the number of items removed from the original Sketch Engine search results. Note that the examples with D refer to the examples on the online data sheet.

From the search on the verb *dodaty/dodavaty* ‘add’ and the object *voda* ‘water’, we excluded the following items: 4 sentences with

18 A similar method using shuffle function for a sampling 500 sentences was applied by Vaiss (2022), who used it to establish that the Russian and Ukrainian verbs for ‘watch, look’ have a significantly lower degree of transitivity compared to their equivalents in Estonian. It did not matter for the number of hits in the present study whether we started the Word Sketch from one or another direction: it was a matter of convenience. For the words *bad’orist’* ‘vigour’ with a perfective verb, we used the Word Sketch starting with the noun. For the noun *voda* ‘water’, we started the search via the verbs (PERF and IMPF). With the noun *bad’orist’* ‘vigour’, in combination with an imperfective verb, we used Word Sketch starting with the verb.

‘water’ as a subject, 2 sentences machine translated (Ukrainian text not produced by humans), 9 negative sentences (see examples 9 = (4D), 10 = (12D) and 11 = (13D) on the data sheet), 231 sentences with quantifiers (see examples 12 = (7D) and 13 = (17D) on the data sheet), 2 sentences with their objects in the plural, 21 sentences with ‘water’ misclassified as an object (being in fact a different type of complement).

For those readers who are interested in replicating the study, here we discuss some instances of excluded examples that represent types that were abundant in the results of our corpus search.

Example (7) = (3D) presents the perfective verb form *dodadut’* ‘they add’ and example (8) = (16D) presents the imperfective verb form *dodaje* ‘it adds’ with the dative case *vodi*. This mistake was regular in the type of search we conducted because of the three-place predicate nature of the verb. The object in this case is present, *aromat* ‘aroma’, but we excluded all sentences that had a misclassified object.

(7) = (3D)

<i>Вони</i>	<i>додадуть</i>	<i>воді</i>	<i>аромат</i>	<i>і</i>	<i>зроблять</i>
<i>Vony</i>	<i>dodadut’</i>	<i>vodi</i>	<i>aromat</i>	<i>i</i>	<i>zroblyat’</i>
they	PREF.add.3PL.PERF	water.DAT	aroma	and	make
<i>шкіру</i>	<i>більш</i>	<i>м’якою.</i>			
<i>škiru</i>	<i>bil’sh</i>	<i>m”jakoju.</i>			
skin	more	soft			

‘They will add aroma to the water and make the skin softer.’

(8) = (16D)

<i>Мідь</i>	<i>додає</i>	<i>воді</i>	<i>неприємний</i>	<i>терпкий</i>
<i>Mid’</i>	<i>dodaje</i>	<i>vodi</i>	<i>nepryjemnyj</i>	<i>terpkij</i>
copper	PREF.gives.IMPF	water.DAT	unpleasant	astrigent
<i>присмак</i>	<i>у</i>	<i>низьких</i>	<i>концентраціях.</i>	
<i>prysmak</i>	<i>u</i>	<i>nyz’kux</i>	<i>koncentracijax</i>	
taste	in	low	concentrations	

‘Copper gives water an unpleasant astrigent taste in low concentrations.’

In examples (9) and (10), a verb form of perfective *dodaty* ‘add’ and imperfective *dodavaty* ‘add’ respectively are combined with the genitive object in negation.

(9) = (4D)

<i>Не</i>	<i>перемішуйте.</i>	<i>І,</i>	<i>головне,</i>	<i>не</i>	<i>додайте</i>
<i>Ne</i>	<i>peremišujte.</i>	<i>I,</i>	<i>holovne,</i>	<i>ne</i>	<i>dodajte</i>
NEG	PREF.stir.2PL.IMPf	and	most.importantly	NEG	PREF.add.PERF
	<i>води!</i>				
	<i>vody!</i>				
	water.GEN				

‘Do not stir. And, most importantly, do not add water!’

(10) = (12D)

<i>Намагайтеся</i>	<i>не</i>	<i>додавати</i>	<i>води,</i>	<i>якщо</i>	<i>бачите,</i>
<i>Namahajtesja</i>	<i>ne</i>	<i>dodavaty</i>	<i>vody,</i>	<i>jakščo</i>	<i>bačyte,</i>
try	not	PREF.add.IMPf	water.GEN	if	see.2PL
<i>що</i>	<i>гіпс</i>	<i>застигає.</i>			
<i>ščo</i>	<i>hips</i>	<i>zastyhaje.</i>			
that	plaster	hardens			

‘Try not to add water if you see the plaster harden.’

In example (11), we present an imperfective verb form of *dodavaty* ‘add’ that is combined with the accusative object in negation. All together there were 130 examples with the accusative objects in negative sentences, which in itself is an interesting finding to report; here, it illustrates a highly frequent type of data that we have manually excluded.

(11) = (13D)

<i>Наприклад,</i>	<i>не</i>	<i>додавайте</i>	<i>воду</i>	<i>у</i>	<i>туш</i>
<i>Napryklad</i>	<i>ne</i>	<i>dodavajte</i>	<i>vodu</i>	<i>u</i>	<i>tuš</i>
for.example	neg	PREF.add.IMPf	water.ACC	to	mascara
<i>або</i>	<i>ацетон</i>	<i>у</i>	<i>лак</i>	<i>для</i>	<i>нігтів.</i>
<i>abo</i>	<i>aceton</i>	<i>u</i>	<i>lak</i>	<i>dlja</i>	<i>nihtiv.</i>
or	acetone	to	polish	for	nails

‘For example, don’t add water to mascara or acetone to nail polish.’

In examples (12) and (13), the perfective verb form of *dodaty* ‘add’ and its aspectual partner, the imperfective verb form of *dodavaty* ‘add’ respectively occur together with a quantifier after which follows the genitive object.

(12) = (7D)

А	що,	коли	до	вентилятора	приєднати	холодильник,
A	ščo,	koly	do	ventyljatora	pryjednaty	cholodyl'nyk,
and	what	if	to	fan	connect	refrigerator
та	ще	й	додати	трішки	води?	
ta	šče	j	dodaty	trišky	vody?	
and	also		PREF.add.PERF	a.little	water.GEN	

'And what if you connect a refrigerator to the fan, and also add a little water?'

(13) = (17D)

Аби	знизити	витрати,	недобросовісні	виробники
Aby	znyzyty	vytraty,	nedobrosovisni	vyrobnyky
to	reduce	costs	unscrupulous	producers
додають	більше	води	або	використовують
dodajut'	bil'she	vody	abo	vykorystovujut'
PREF.add.IMPF	more	water.GEN	or	use
сировину	поганої	якості.		
syrovynu	rohanoji	jakosti.		
raw.material	poor	quality		

'To reduce costs, unscrupulous producers add more water or use poor quality raw materials.'

From the search on the verb *dodaty/dodavaty* 'add' and the abstract object *bad'orist* 'vigour', we excluded the following items: 1 sentence machine translated, clearly not worded by a human, 1 sentence that is doubled, 8 negative sentences.

From the search on the verb *zvaryty/varyty* 'cook' and the abstract object *boršč* 'borscht', we excluded the following items: 6 sentences with measure genitives, 1 sentence machine translated, 2 sentences with passive, 42 negative sentences, 2 sentences with doubled nouns, 68 sentences with objects in plural, 2 sentences that are doubled.

From the search on the verb *dodaty/dodavaty* with the noun *cukor* 'sugar', 2 sentences were excluded in the results of imperfective and 2 from the perfective sentences. In both cases, there was one malformed word and one quantifier in the phrases.

From the search on the verb *dodaty/dodavaty* with the noun *optymizm* 'optimism', negative sentences were excluded: 250 sentences were excluded in the results of imperfective and 91 from the perfective sentences.

From the search on the verb *dodaty/dodavaty* 'add' and the object *vpevnenist* 'confidence', we excluded the following items: 4 sentences with 'confidence' as a subject, 68 negative sentences, 15 sentences with quantifiers, 1 sentence with another object than confidence and 1 sentence because it was identical to another sentence in the excel file.

From the search on the verb *nabuty/nabuvaty* 'gain' and the object *dosvid* 'experience', we excluded the following items: 11 sentences with 'experience' as a subject, 2 sentences with object in instrumental case, 4 sentences machine translated, 20 negative sentences, 9 sentences with quantifiers, 2 sentences with their objects in the plural, 11 sentences in passive construction.

From the search on the verb *nabuty/nabuvaty* 'gain' and the object *vpevnenist'* 'confidence', we excluded the following items: 3 negative sentences and 1 sentence that occurred twice.

From the search on the verb *navaryty/navarjuvaty* 'cook' and the object *boršč* 'borscht' we excluded the following items: 2 sentences with their objects in the plural.

From the search on the verb *dovaryty/dovarjuvaty* 'cook' and the object *boršč* 'borscht' we excluded the following item: 1 negative sentence.

From the search on the verb *pobažaty/bažaty* 'wish' and the object *optymizm* 'optimism' we excluded the following items: 3 sentences with quantifiers.

5 Results

The visualisations in Figures 1-4 present the data with the concrete mass nouns *boršč* 'borscht', *voda* 'water' and *cukor* 'sugar', and Figures 5-9 present the data with abstract mass nouns as *bad'orist* 'vigour' or *optymizm* 'optimism' etc. Figures 10, 11 are additional, on the intensional verb *pobažaty/bažaty* 'wish' and the object *optymizm* 'optimism', and a summary figure, Figure 11, visualising Figures 1-9. The summary of the results can be found in Table 4. Note that there is an open access data sheet that contains proof of all combinations described in the ensuing Figures. The numbers with 'D', provided additionally next to the example numbers, refer to example numbering on the online data sheet at osf.io/qcnx8.

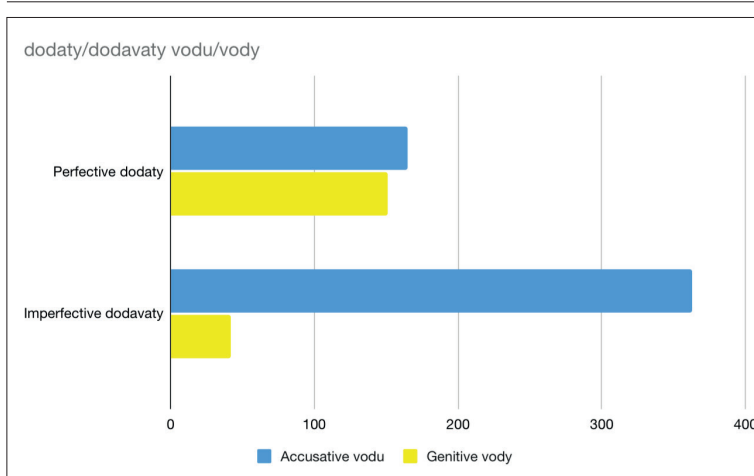


Figure 1 The verb *dodaty/dodavaty* ‘add’ and the object *voda* ‘water’

5.1 Concrete Mass Nouns

The Figures 1-4 present the data with concrete mass nouns.

We see proportions of usage [fig. 1]. The object *voda* ‘water’ when combined with an imperfective verb *dodavaty* ‘add’ is used in 42 cases in the genitive case and in 363 cases in the accusative case. At the same time, with the perfective verb, the object *voda* ‘water’ is in 165 cases in the accusative case and in 151 cases in the genitive case. It is thus clear that the accusative case appears more with imperfective than perfective verbs and in the case of perfective verbs the number of accusative and genitive objects is almost equal.¹⁹ In examples (14) and (15), we present an example from the ukTenTen corpus of the perfective verb *dodaty vody* and *vodu* ‘add water’. Example (14) illustrates the perfective *dodaty* ‘add’ and the accusative *vodu* ‘water’.

(14) = (1D)

<i>Яйця</i>	<i>розбити</i>	<i>в</i>	<i>миску, посолити,</i>
<i>Jaјcja</i>	<i>rozbyty</i>	<i>v</i>	<i>mysku, posolyty,</i>
eggs	crack	in	bowl add.salt
<i>дати</i>	<i>воду</i>	<i>і</i>	<i>збити.</i>
<i>dodaty</i>	<i>vodu</i>	<i>i</i>	<i>zbyty.</i>
PREF.add.PERF	water.ACC	and	beat

‘Crack the eggs into a bowl, add salt, add water and beat.’

¹⁹ The perfective variant with negation and an accusative object is absent with the combination ‘add water’, that is, not attested in our data.

Example (15) illustrates the perfective *dodaty* ‘add’ and the genitive *vody* ‘water’.

(15) = (2D)

<i>До</i>	<i>цієї</i>	<i>суміші</i>	<i>можна</i>	<i>додати</i>
<i>Do</i>	<i>cijeji</i>	<i>sumiši</i>	<i>tožna</i>	<i>dodaty</i>
to	this	mixture	is.possible	PREF.add.PERF
<i>води</i>	<i>в</i>	<i>пропорції</i>	<i>1:1.</i>	
<i>vody</i>	<i>v</i>	<i>proporciji</i>	<i>1:1.</i>	
water.GEN	in	proportion	1:1	

‘Water can be added to this mixture in a proportion of 1:1.’

Example (16) illustrates the imperfective *dodavaty* ‘add’ and the genitive *vody* ‘water’.

(16) = (10D)

<i>Все</i>	<i>це</i>	<i>змішують</i>	<i>і</i>	<i>додають</i>	<i>води.</i>
<i>Vse</i>	<i>ce</i>	<i>zmišujut’</i>	<i>i</i>	<i>dodajut’</i>	<i>vody.</i>
All	this	PREF.mix.3PL.IMP	and	PREF.add.3PL.IMP	water.GEN

‘All this is mixed and water is added.’/‘They mix all this and add water.’

Example (17) illustrates the imperfective *dodavaty* ‘add’ and the accusative *vodu* ‘water’.

(17) = (11D)

<i>З</i>	<i>гречаного</i>	<i>борошна,</i>	<i>в</i>	<i>яке</i>	<i>додаємо</i>
<i>Z</i>	<i>hrečanoho</i>	<i>borošna,</i>	<i>v</i>	<i>jake</i>	<i>dodajemo</i>
from	buckwheat	flour	to	which	PREF.add.1PL.IMP
<i>воду</i>	<i>і</i>	<i>яйце,</i>	<i>робимо</i>	<i>густе</i>	<i>тісто.</i>
<i>vodu</i>	<i>i</i>	<i>jajce,</i>	<i>robymo</i>	<i>huste</i>	<i>tisto.</i>
water.ACC	and	egg	make.1PL	thick	dough

‘We make a thick dough from buckwheat flour, to which we add water and an egg.’

We see proportions of usage in Figure 2: the object *cukor* ‘sugar’, when combined with an imperfective verb *dodavaty* ‘add’, is used in 6 cases in the genitive case and in 449 cases in the accusative case. At the same time, with the perfective verb, the object *cukor* ‘sugar’ is in 50 cases in the genitive case and in 444 cases in the accusative case. It is thus clear that the genitive case appears more with the perfective than with the imperfective verb, and the number of accusative uses is almost equal for both the perfective and the imperfective verb [fig. 2].

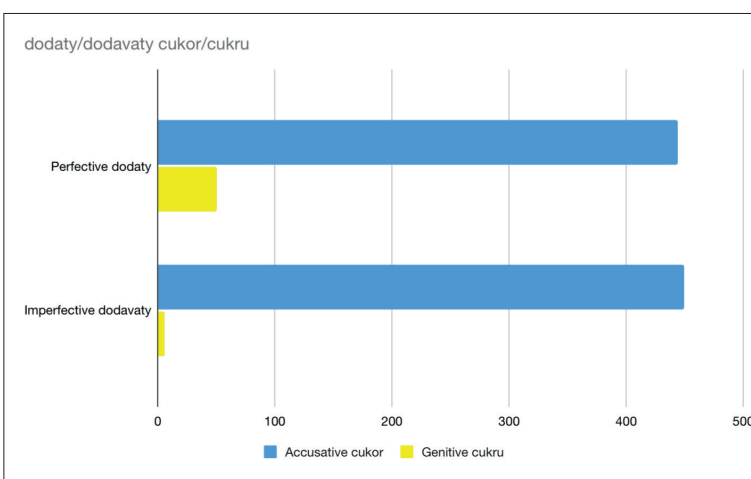


Figure 2 The verb *dodaty/dodavaty* 'add' and the object *cukor* 'sugar'

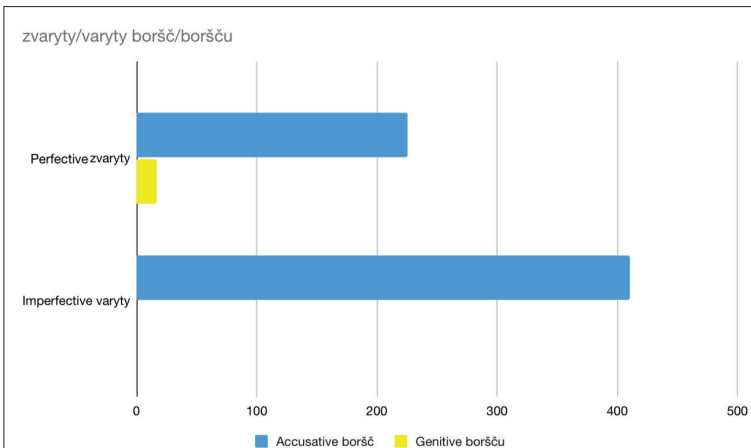


Figure 3 The verb *zvaryty/varyty* 'cook' and the object *boršč* 'borscht'

We see proportions of usage in Figure 3: the object *boršč* 'borscht', when combined with an imperfective verb *varyty* 'cook', has no cases (N=0) where the object is used in the genitive case, while it is used in 410 cases in the accusative case. For the perfective verb, the object *boršč* 'borscht' is used in 225 cases in accusative case and in 17 cases in genitive case. The accusative case is used more frequently for both imperfective and perfective verbs, while the genitive case does not appear at all with imperfective verbs (N=0) [fig. 3].

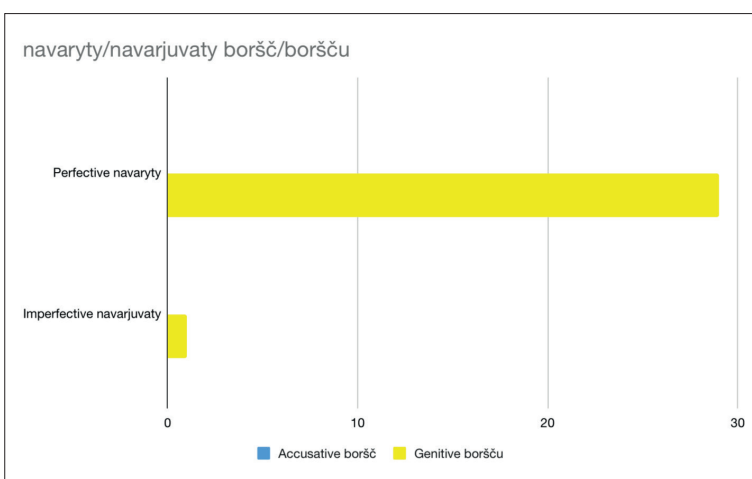


Figure 4 The verb *navaryty/navarjuvaty* 'cook' and the object *boršč/boršču*

Example (18) illustrates an instance of *boršč* 'borscht' in the accusative case and the imperfective verb *varyty* 'cook'.

(18) = (30D)

<i>Як</i>	<i>варить</i>	<i>борщ</i>	<i>твоя</i>	<i>мама?</i>
<i>Jak</i>	<i>varyt'</i>	<i>boršč</i>	<i>tvoja</i>	<i>tama?</i>
how	cook.IMPF	borscht.ACC	your	mother

'How does your mother cook borscht?'

Example (19) illustrates an instance of *boršč* 'borscht' in the accusative case with the perfective verb *zvaryty* 'cook'.

(19) = (31D)

<i>З</i>	<i>нею</i>	<i>зварити</i>	<i>борщ</i>	<i>можуть</i>	<i>навіть</i>
<i>Z</i>	<i>neju</i>	<i>zvaryty</i>	<i>boršč</i>	<i>možut'</i>	<i>navit'</i>
with	it	PREF.COOK.PERF	borscht.ACC	can	even

маленькі діти.
malen'ki dity.
 little children.
 'Even little children can cook borscht with it.'

Example (20) illustrates an instance of *boršču* ‘borscht’ in the genitive case with the perfective verb *zvaryty* ‘cook’.

(20) = (32D)

<i>Цього дня</i>	<i>годиться</i>	<i>зварити</i>	<i>борщу</i>	<i>з півнем.</i>
<i>Сього dnja</i>	<i>hodyt'sja</i>	<i>zvaryty</i>	<i>boršču</i>	<i>z pivnem.</i>
on.this	day	it.is.good	PREF.COOK.PERF	borscht.GEN
				with rooster

‘On this day, it is good to cook borscht with a rooster.’

Example (21) illustrates grammatically incorrect sentences, which are marked with an asterisk. In (21a), there is a sentence with *boršču* ‘borscht’ in the genitive case with the imperfective verb *varyty* ‘cook’, which we have constructed. In (21b), we have modified the grammatically correct (18), which has an accusative, replacing the object case with the genitive. Native speaker’s judgment about (21b) is also that it is incorrect.

(21) = (33D)

- a. **Вона варила борщу на кожне свято.*
Vona varyla boršču na kožne svjato.
 she cooked.IMPF borscht.GEN for every holiday
 ‘She cooked borscht for every holiday.’
- b. **Як варить борщу твоя мама?*
Jak varyt' boršču tvoja tata?
 how cook.IMPF borscht.GEN your mother
 ‘How does your mother cook borscht?’

We see in Figure 4 that the object *boršč* ‘borscht’, when combined with the imperfective verb *navarjuvaty* ‘cook’, is used just once (N=1) in the genitive case. The website of the Ukrainian dictionary²⁰ gives the following equivalent for the cooking-related sense of this version of the verb: ‘prepare any amount of food by cooking’ that suits the combination with the object *boršč* ‘borscht’. Simultaneously, with the perfective verb, the concrete mass noun *boršč* is in 29 cases in the genitive case. The imperfective and the perfective verbs are not used with the accusative object at all (N=0) [fig. 4].

²⁰ <https://sum.in.ua/>.

In (22), we see *navarjuvaty boršču* ‘cook an amount of borscht’: an imperfective verb with the genitive object.

(22) = (24D)

Я	наварювала	борщу,	і	цей	борщ
Ja	navarjuvala	boršču,	i	cej	boršč
I	PREF.cooked.IMPF	borscht.GEN	and	this	borscht
за	один	день	з’їдали –	було	кому.
za	odyn	den’	z”jidalj –	bulo	komu.
in	one	day	eat.3PL	was	someone.

‘I cooked borscht, and this borscht was eaten in one day – there was someone (to do it).’

Example (23) illustrates the perfective *navaryty* ‘cook’ and the genitive *boršču* ‘borscht’.

(23) = (29D)

Приведи	Алю,	я	наварила	борщу –
Privedy	Alju,	ja	navaryla	boršču –
bring	Alya,	i	PREF.made.PERF	borscht.GEN
сказала	Каті	в	наступний	раз.
skazala	Kati	v	nastupnyj	raz.
told.3.SG	Katya	in	next	time

‘Bring Alya, I have made (a certain amount of – LCh) borscht - she answered Katya.’

Perfective verbs with genitive objects are illustrated in (24) and (25), *navaryty boršču* ‘cook a certain amount of borscht’. Note that there is a parallelism between the two actions that are juxtaposed in (24). In both examples, the verbs are prefixed with *na-*.

(24) = (27D)

Наварила	борщу,	наsipала	в	тарілку.
Navaryla	boršču,	nasypala	v	tarilku.
PREF.cooked.PERF	borscht.GEN	PREF.poured.PERF	into	plate

‘(I/you/she) has cooked (a certain amount) borscht and has poured it into a plate.’

Note that, again, there is a parallelism in the prefix in the two actions that are juxtaposed in (25).

(25) = (28D)

<i>Бабуся</i>	<i>наварила</i>	<i>борщу,</i>	<i>наліпила</i>	<i>вареників.</i>
<i>Babusja</i>	<i>navaryla</i>	<i>boršču,</i>	<i>nalipyla</i>	<i>varenykiv.</i>
grandma	PREF.cook.PERF	borscht.GEN	PREF.made.PERF	dumplings.GEN

'Grandma has cooked borscht (a certain amount), has made dumplings (a certain amount).'

In the series of 'cook' with the prefix *do-*, we found 6 imperfective verbs, which were the only sentences in the corpus, all of which appeared with an accusative object only. Examples (26) and (27) illustrate the imperfective *dovarjuvaty* 'cook so that it is ready' and the accusative *boršč* 'borscht'. Note that both occurrences of imperfective forms are combined with a motion verb: the motion verbs of running and going.

(26) = (25D)

<i>У</i>	<i>цій</i>	<i>метушні</i>	<i>жінка</i>	<i>забула</i>	<i>про</i>	<i>всі</i>
<i>U</i>	<i>cij</i>	<i>metušni</i>	<i>žinka</i>	<i>zabula</i>	<i>pro</i>	<i>vsj</i>
in	this	commotion	woman	forgot	about	all

<i>образи</i>	<i>і</i>	<i>швидко</i>	<i>побігла</i>	<i>доварювати</i>	<i>борщ.</i>
<i>obrazy</i>	<i>i</i>	<i>švydko</i>	<i>robihla</i>	<i>dovarjuvaty</i>	<i>boršč.</i>
insults	and	quickly	ran	PREF.cook.IMPF	borscht.ACC

'In this commotion, the woman forgot about all the insults and quickly ran to finish cooking borscht.'

(27) = (26D)

<i>Тільки</i>	<i>не</i>	<i>здумайте</i>	<i>йти</i>	<i>доварювати</i>	<i>борщ</i>
<i>Til'ky</i>	<i>ne</i>	<i>zdumajte</i>	<i>jty</i>	<i>dovarjuvaty</i>	<i>boršč</i>
just	neg	think	go	PREF.cook.IMPF	borscht.ACC

<i>або</i>	<i>домивати</i>	<i>підлоги!</i>
<i>abo</i>	<i>dotyvaty</i>	<i>pidlohy!</i>
or	PREF.clean.IMPF	floors

'Don't even think of going to finish cooking borscht or to finish cleaning the floors!'

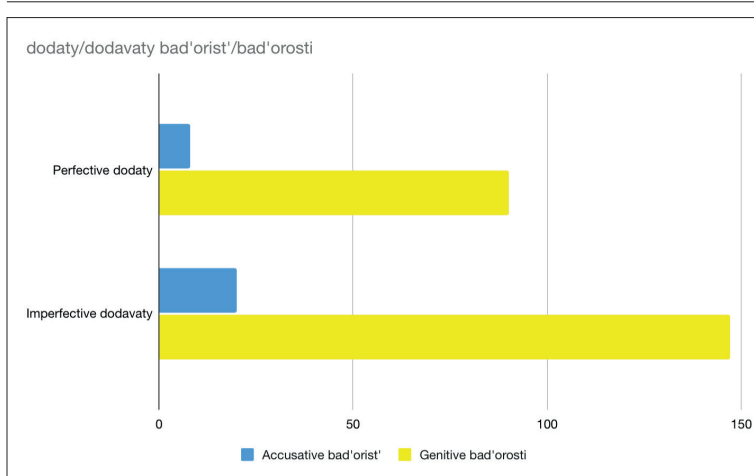


Figure 5 The verb *dodaty/dodavaty* 'add' and the object *bad'orist'* 'vigour'

5.2 Abstract Mass Nouns

Figures 5-9 present the data with abstract mass nouns.

We see the proportions in Figure 5: the object *bad'orist'* 'vigour', when combined with the imperfective verb *dodavaty* 'add', is used in 147 cases in the genitive case and in 20 cases in the accusative case. At the same time, with the perfective verb, the object *bad'orist'* 'vigour' is used in 8 cases in the accusative case and in 90 cases in the genitive case. It is thus clear that the genitive case appears more frequently with both the perfective and imperfective verb *dodaty/dodavaty* 'add' [fig. 5].

We see the proportions in Figure 6: the perfective verb *dodaty* 'add' appears 209 times with the object *optimizm* 'optimism' in the genitive case and just once in the accusative case. The imperfective verb *dodavaty* 'add' appears 250 times with the object *optimizm* 'optimism' in the genitive case and once in the accusative case. Thus, the object *optimizm* 'optimism' is very rare in the accusative case with the verbs *dodaty/dodavaty* 'add'.

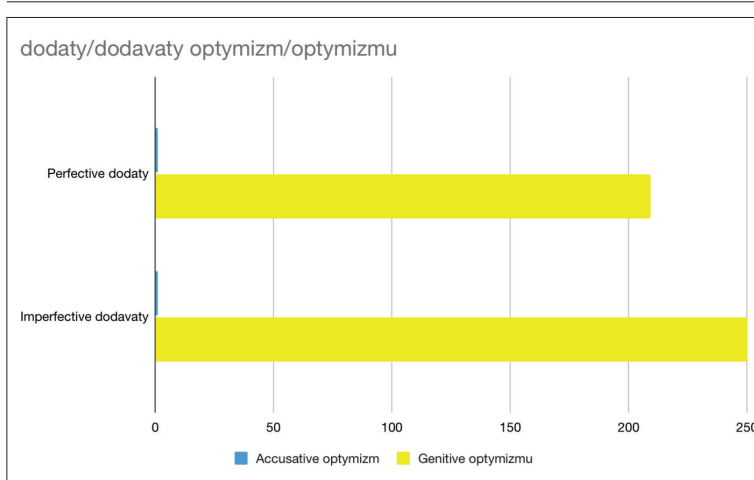


Figure 6 The verb *dodaty/dodavaty* 'add' and the object *optymizmu* 'optimism'

Example (28) illustrates the perfective *dodaty* 'add' and the genitive *optymizmu* 'optimism' [fig. 6].

(28) = (20D)

<i>Сумно?</i>	<i>Безнадійно?</i>	<i>Але</i>	<i>ж</i>	<i>сказав-бо</i>
<i>Sumno?</i>	<i>Beznadijno?</i>	<i>Ale</i>	<i>ž</i>	<i>skazav-bo</i>
sadly	hopelessly	but	PRT	said
<i>апостол</i>	<i>Павло</i>	<i>свої</i>	<i>парадоксальні</i>	<i>слова,</i>
<i>apostol</i>	<i>Pavlo</i>	<i>svoji</i>	<i>paradoksal'ni</i>	<i>slova,</i>
apostle	Paul	his	paradoxical	words
<i>що не</i>	<i>одному</i>	<i>дали</i>		<i>оптимізму:</i>
<i>ščo ne</i>	<i>odnotu</i>	<i>dodaly</i>		<i>optymizmu:</i>
which not	one	PREF.added.PERF		optimism.GEN
<i>“А де</i>	<i>збільшився</i>	<i>гріх,</i>		<i>там</i>
<i>“A de</i>	<i>zbil'syvsja</i>	<i>hrix,</i>		<i>tam</i>
and where	increased	sin		there
<i>зарясніла</i>	<i>благодать”</i>			
<i>zarjasnila</i>	<i>blahodat”</i>			
abounded	grace			

'Sad? Hopeless? But the apostle Paul said his paradoxical words, which added optimism to more than one person: "But where sin increased, grace increased all the more".'

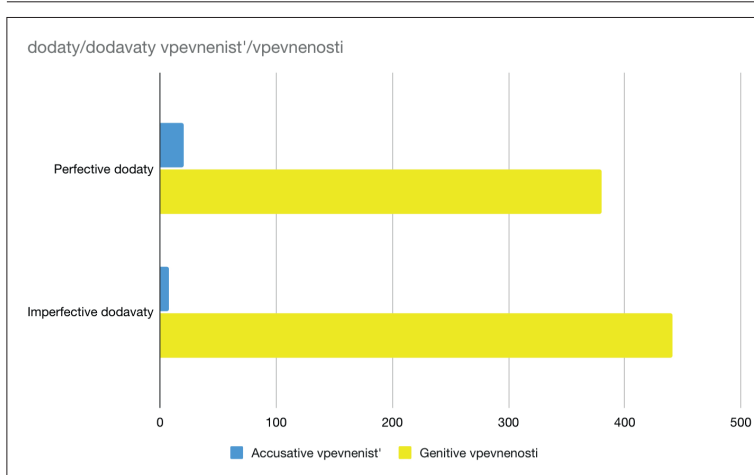


Figure 7 The verb *dodaty/dodavaty* 'add' and the object *vpevnenist'* 'confidence'

Example (29) illustrates the imperfective *dodavaty* 'add' and the accusative *optymizm* 'optimism'.

(29) = (21D)

<i>Нехай</i>	<i>поряд</i>	<i>із</i>	<i>зміцненням</i>	<i>нашої</i>	<i>держави</i>
<i>Nexaj</i>	<i>porjad</i>	<i>iz</i>	<i>zmicnennjam</i>	<i>pašoji</i>	<i>deržavy</i>
let	along	with	strengthening	our	state
<i>змінюється</i>	<i>на</i>	<i>краще</i>	<i>наше</i>	<i>з</i>	<i>вами</i>
<i>zminjujet'sja</i>	<i>na</i>	<i>krašče</i>	<i>paše</i>	<i>z</i>	<i>vamy</i>
change	for	better	our	with	you
<i>життя,</i>	<i>а</i>	<i>загартовані</i>	<i>сила</i>	<i>і</i>	<i>воля</i>
<i>žyttja,</i>	<i>a</i>	<i>zahartovani</i>	<i>syla</i>	<i>i</i>	<i>volja</i>
life	and	hardened	strength	and	will
<i>додають</i>	<i>оптимізм</i>	<i>у</i>	<i>майбутньому!</i>		
<i>dodajut'</i>	<i> optymizm</i>	<i>u</i>	<i>tajbutn'omu!</i>		
PREF.add.IMPF	optimism.ACC	in	future		

'Along with the strengthening of our state, may our life with you change for the better, and hardened strength and will add optimism in the future!'

We see in Figure 7 that in a positive sentence the perfective verb *dodaty* 'add' appears 380 times with the object *vpevnenist'* 'confidence' in the genitive case and 20 times in the accusative case. The imperfective verb *dodavaty* 'add' appears 441 times with the object *vpevnenist'* 'confidence' in the genitive case and 8 times in the accusative case. The abstract object in the genitive case is again more frequent here [fig. 7].

We see the proportions of usage in Figure 8. The abstract noun *dosvid* 'experience', when combined with the imperfective verb

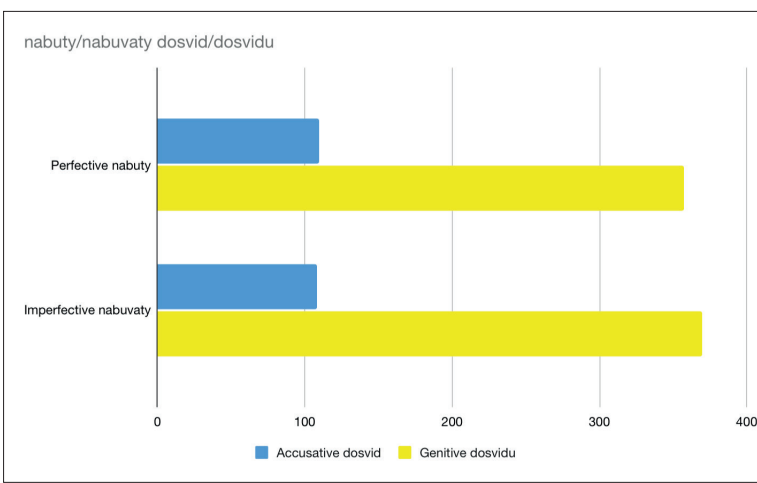


Figure 8 The verb *nabuty/nabuvaty* 'gain' and the object *dosvid* 'experience'

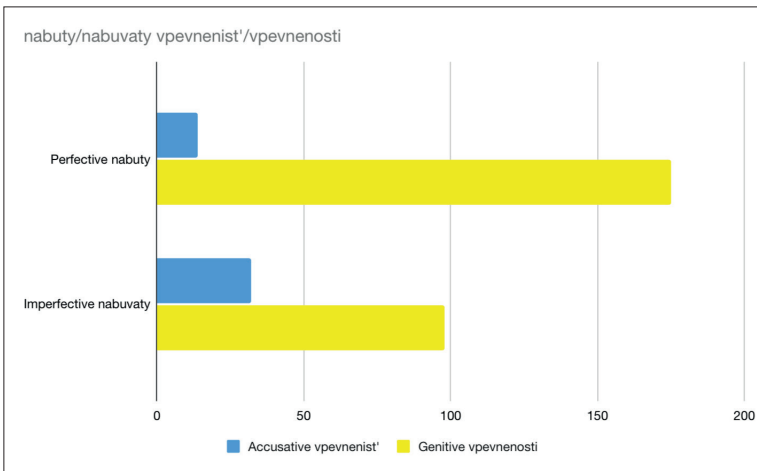


Figure 9 The verb *nabuty/nabuvaty* 'gain' and the object *vpevnenist'* 'confidence'

nabuvaty 'gain', is used in 370 cases in the genitive case and in 108 cases in the accusative case. At the same time, with the perfective verb, the abstract object *dosvid* 'experience' is used in 110 cases in the accusative case and in 357 cases in the genitive case [fig. 8].

We see the proportions in Figure 9: the object *vpevnenist'* 'confidence' when combined with the imperfective verb *nabuvaty* 'gain' is used in 98 cases in the genitive case and in 32 cases in the accusative case. With the perfective verb, the abstract noun *vpevnenist'* is in 14 cases in the accusative and in 175 cases in the genitive [fig. 9].

5.3 Intensional Verbs

This subsection presents the pattern of aspect and object case of an intensional verb pair, *pobažaty* PERF and *bažaty* IMPF *optymizm(u)* ‘wish optimism’ [fig. 10].

We see in Figure 10 that the object *optymizm* ‘optimism’, when combined with the verb form *bažaty* IMPF, ‘wish’ is used in 10 cases in the genitive case. At the same time, with the prefixed verb form, *pobažaty* PERF ‘wish’, the abstract noun *optymizm* is found in 12 cases in the genitive case. The verb forms do not occur with the accusative object. Figure 11 serves as a visual aid.

In Table 4, we present a summary of all analysed aspectual pairs. Please note that in some cases, we have not found examples of the verb and the object in our sample. These cases of low frequency with no examples (N = 0) were excluded in Figure 11 but included in Table 4 [fig. 11] [tab. 4].

Table 4 Summary of the results on the aspect of the verbs and the case and properties of the object nouns. An asterisk (*) marks items of low frequency

Verb	Aspect	Prefix	object noun	nominal proper-ties	N and % of accusative objects	N and % of objects with genitive
<i>dodaty</i> ‘add’	perfective	do-	<i>voda</i> ‘water’	concrete	165 (52.21%)	151 (47.78%)
<i>dodavaty</i> ‘add’	imperfective	do-	<i>voda</i> ‘water’	concrete	363 (89.62%)	42 (10.37%)
<i>dovaryty</i> ‘cook’*	perfective	do-	<i>boršč</i> ‘borscht’	concrete	0	0
<i>dovarjувaty</i> ‘cook’*	imperfective	do-	<i>boršč</i> ‘borscht’	concrete	6 (100%)	0(0%)
<i>dodaty</i> ‘add’	perfective	do-	<i>cukor</i> ‘sugar’	concrete	444 (89.87%)	50 (10.12%)
<i>dodavaty</i> ‘add’	imperfective	do-	<i>cukor</i> ‘sugar’	concrete	449 (98.68%)	6 (1.31%)
<i>navaryty</i> ‘cook’*	perfective	na-	<i>boršč</i> ‘borscht’	concrete	0	29 (100%)
<i>navarjувaty</i> * ‘cook’*	imperfective	na-	<i>boršč</i> ‘borscht’	concrete	0	1 (100%)
<i>zvaryty</i> ‘cook’	perfective	z-	<i>boršč</i> ‘borscht’	concrete	225 (92.97%)	17 (7.02%)
<i>varyty</i> ‘cook’	imperfective	-	<i>boršč</i> ‘borscht’	concrete	410 (100%)	0 (0%)
<i>dodaty</i> ‘add’	perfective	do-	<i>vpevnenist</i> ‘confidence’	abstract	20 (5%)	380 (95%)
<i>dodavaty</i> ‘add’	imperfective	do-	<i>vpevnenist</i> ‘confidence’	abstract	8 (1.78%)	441 (98.21%)
<i>nabuty</i> ‘gain’	perfective	na-	<i>dosvid</i> ‘experience’	abstract	110 (23.55%)	357 (76.44%)
<i>nabuvaty</i> ‘gain’	imperfective	na-	<i>dosvid</i> ‘experience’	abstract	108 (22.59%)	370 (77.4%)
<i>dodaty</i> ‘add’	perfective	do-	<i>optymizm</i> ‘optimism’	abstract	1 (0.47%)	209 (99.52%)
<i>dodavaty</i> ‘add’	imperfective	do-	<i>optymizm</i> ‘optimism’	abstract	1 (0.39%)	250 (99.6%)
<i>dodaty</i> ‘add’	perfective	do-	<i>bad’orist</i> ‘vigour’	abstract	8 (8.16%)	90 (91.83%)
<i>dodavaty</i> ‘add’	imperfective	do-	<i>bad’orist</i> ‘vigour’	abstract	20 (11.97%)	147 (83.02%)
<i>nabuty</i> ‘gain’	perfective	na-	<i>vpevnenist</i> ‘confidence’	abstract	14 (7.4%)	175 (92.59%)
<i>nabuvaty</i> ‘gain’	imperfective	na-	<i>vpevnenist</i> ‘confidence’	abstract	32 (24.61%)	98 (75.38%)

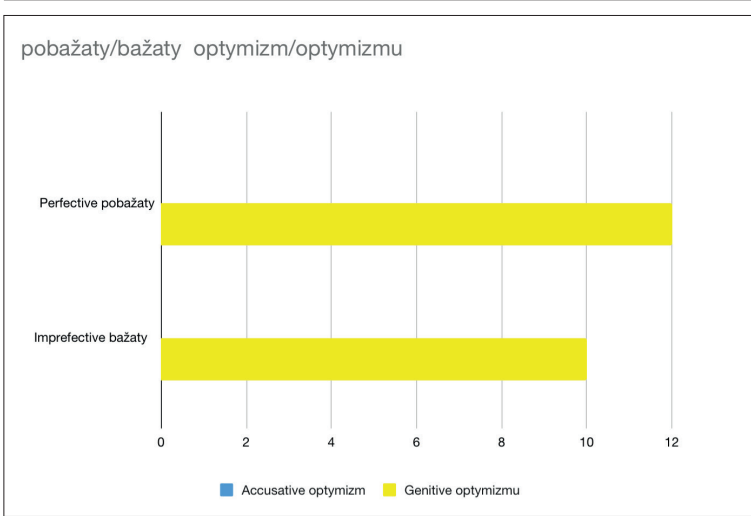


Figure 10 The verb *pobažaty/bažaty* 'wish' and the object *optymizm* 'optimism'

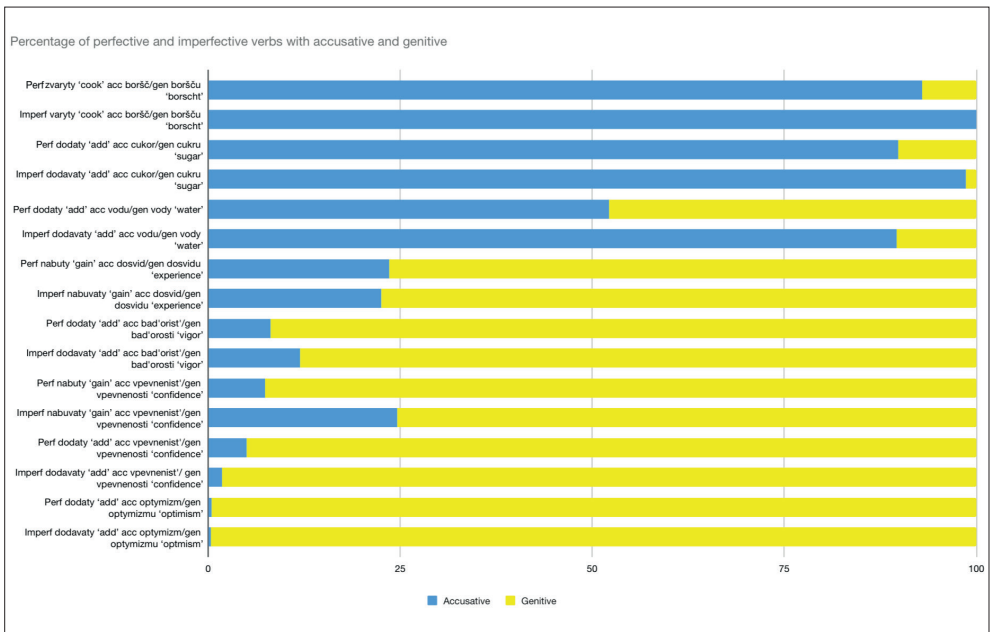


Figure 11 Summary of the usage of verbs with concrete and abstract mass nouns as objects in the accusative and the genitive case

6 Discussion

We have found that the verbs denoting ‘add’ allow us to compare the case alternation on the mass nouns, abstract and concrete. Additional combinations of verbs and nouns have been studied to supply more evidence. We have found differences between nouns that span across verb classes. For the discussion of the data, we performed an occasional smaller scale corpus search that we will discuss in the ensuing passages.

In the case of concrete mass nouns, imperfective verbs are less likely to appear with the genitive object than their usually prefixed counterpart, perfective verbs. The combination of the imperfective *varyty* ‘cook’ and *boršč* ‘borscht’ has only accusative objects in our sample, while the combination of the perfective *zvaryty* ‘cook’ and *boršč* ‘borscht’ has 7% of the genitive objects. However, *navaryty/navarjuvaty* ‘cook (some certain amount)’ has only genitive objects with *boršč* ‘borscht’, showing the significance of the partitivity feature of the prefix for the partitioning or portioning of the cumulative object of indeterminate quantity. In these verb forms, the prefixes do not perfectivise the partner in the grammatical aspectual verb pair.

The prefixes *do-* and *na-* with imperfective verbs and with the concrete object *boršč* (*dovaryty/dovarjuvaty* and *navaryty/navarjuvaty* ‘cook’) yield, however, few samples in the corpus and vary in their behaviour. The aspectual verb pair *navaryty/navarjuvaty* ‘cook (any amount)’ and *boršč* ‘borscht’, see examples (22) = (24D), (23) = (29D), (24) = (27D), (25) = (28D), have only 30 results, all examples are genitive and appear only with the imperfective verb partner.²¹ Verb semantics clearly plays a role here, as a determining factor for the possibility of any object case variation. In the case of *dovaryty/dovarjuvaty* ‘cook (until done)’ (see examples (26) = (25D), (27) = (26D)) a genitive object is impossible as only the whole predefined object can be cooked until done. The object is portioned and quantised in the previous discourse if this prefix is applied: one can only finish something that has been started already. The verb with this prefix does not ‘portion’ the object further, even if *boršč* ‘borscht’ in itself denotes a mass noun with indefinite quantity. The aspectual verb pair *navaryty/navarjuvaty*, vice versa, favours a genitive object as it shows here that the amount of object is of a certain quantity that was not defined (‘portioned’) in its preceding context. The prefix *do-*, as opposed to the prefix *na-*, implies an earlier start for the cooking of the same borscht – the cooking has been started earlier and, at the point of speech, it is communicated that it will be

²¹ Note that the examples with D refer to the examples on the online data sheet.

or it was cooked so that this particular amount of borscht is ready. On the contrary, with the prefix *na-*, a new portion is produced. The quantity of borscht remains the same with *do-*; thus, while quantitatively indeterminate, *boršč* ‘borscht’ is not being ‘portioned’, and thus not compatible with the partitive genitive interpretation and the genitive case-marking on the object.²²

If the mass object is more frequent with the accusative than with the genitive, then the concreteness, aspect, and the presence of a prefix play a role. The verb *doda(va)ty* ‘add’ shows that the abstract mass nouns are predominantly in the genitive, and the concrete mass nouns are in the accusative. However, the individual mass abstract nouns displayed differences among each other and also in relation to their case behaviour in combination with the two partners of the aspectual pair. For instance, in *doda(va)ty vpevnenist’ / optymizm(u)* ‘add confidence/optimism’ and *nabu(va)ty dosvid(u)* ‘gain experience’, the aspectual partners displayed only insignificant differences regarding object case marking. The imperfective partner *nabuvaty dosvid(u)* ‘gain experience’ even resulted in having a slightly larger share of genitive objects than the perfective one in the corpus. In this combination, the result is unexpected. We can conclude about abstract mass nouns that the grammatical aspect of the verb is largely insignificant for their object case. Figure 12 demonstrates the expected pattern, showing the share of partitive genitive defined as the combination of a genitive concrete mass noun object and a perfective verb.

Figures 12 and 13 contain the data of all examined verb pairs in our corpus [figs 12-13]. We can confirm based on our corpus study that concrete mass nouns give empirical evidence for the phenomenon referred to as the partitive genitive in Ukrainian. The pattern is as expected. Imperfective verbs have accusative objects, and perfective verbs are divided. The partitive genitive emerges with the perfective aspect and concrete mass objects. Figure 13 visualises the puzzle for abstract mass nouns.

The puzzle concerns Ukrainian abstract mass nouns, more specifically, the lack of straightforward evidence for the phenomenon referred to as the partitive genitive. Some instances of partitive genitive may well be among the examples, but the expected pattern we see for concrete mass nouns in Figure 12 is strikingly absent in Figure 13. Therefore, the accusative-genitive object case alternation

²² Verbs of movement (to go to do something, as in *Vin pišov dovarjuvaty boršč* [IMPF, ACC] ‘He went to cook borscht’) are combined with the imperfective suffixed infinitive; here the verb is prefixed with *do-*. Combining a motion verb with an imperfective instead of a perfective verb is well attested in our corpus examples and might provide evidence for parallels between nominal and verbal domains (cf. also Zuchewicz 2020).

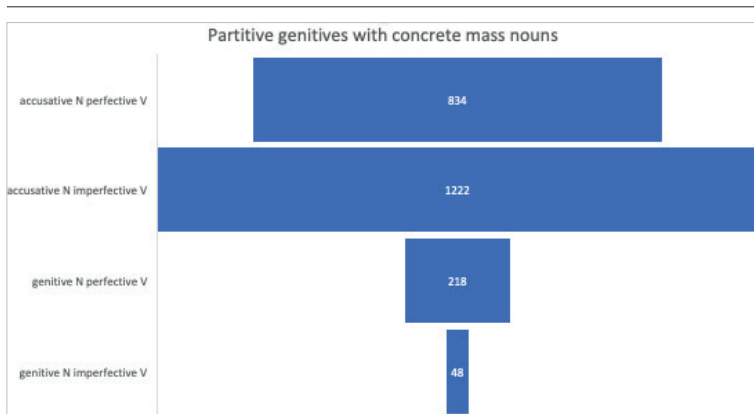


Figure 12 The share of partitive genitive and accusative with concrete mass nouns

cannot rely on a uniform nominal feature for determining the case of objects.²³

The striking difference that underlies the variation between mass nouns, concrete versus abstract, calls for a cross-linguistic and diachronic investigation. As a result of our investigation, we found evidence for a split among mass nouns in the development of Romance and Germanic, and Uralic provides variation data for a synchronic split between concrete and abstract mass nouns.

Several earlier sources point out the abundance of specific partitive related phenomena in culinary literature (Carlier, Lamiroy 2014, 479; 485; Glaser 2024), since culinary texts contain abundant examples for concrete mass nouns. Carlier and Lamiroy (2014) discuss five stages of the partitive article and note that in stage III French, characterised by the hybrid status of the Romance partitive preposition and article, abstract nouns lack the hybrid partitive. In stage IV,

²³ The other avenue is to approach the unexpected variation from the pragmatic or cognitive properties of the mass nouns. Further research could explore the psycholinguistic work on concreteness and abstractness, as represented in the MRC Psycholinguistic Database. Note that our sample of mass nouns belongs to the two outer extremes on the concrete-abstract ratings scale of the database. It is, therefore, plausible that nouns placed mid-scale are also more heterogeneous in terms of partitive genitives. Other cognitive factors may also contribute to the peculiar features of partitive genitive in mass nouns. For instance, abstract and concrete nouns may diverge in how they are processed in their contexts (Schwanenflugel 1991), or there may be a variety of factors, each relevant for a different group of abstract nouns (Wiemer-Hastings 1998). These factors may prevent some abstract mass nouns from being perceived as mass by native speakers of Ukrainian. Also, the frequency of the nouns could play a role in processing and production.

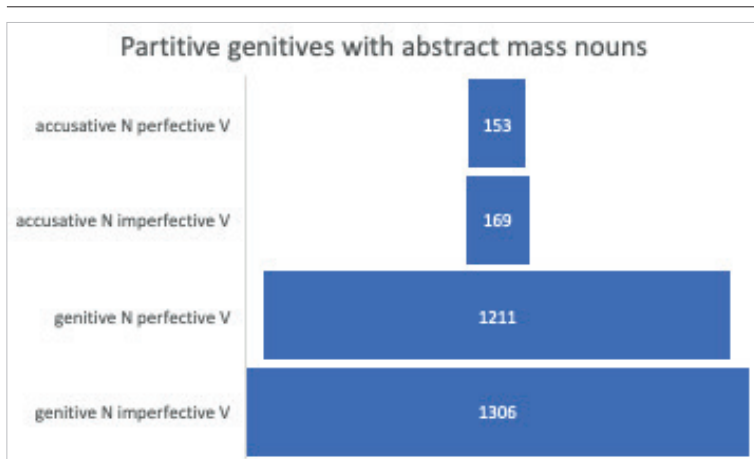


Figure 13 Share of partitive genitive and accusative with abstract mass nouns

the partitive with abstract nouns is still uncommon (Carlier, Lamiroy 2014, 497). In Modern French, which corresponds to stage V, abstract nouns tend to lack the partitive article only if embedded under a PP. Otherwise, Carlier and Lamiroy (2014, 498) generalise that “[t]he partitive article is no longer necessarily linked to the notion of unspecified quantity and becomes common in combination with abstract nouns”. Glaser (2024, 5) points out in her discussion of the sixteenth century cookbook of East Swabian that “[f]or abstract nouns, somewhat different conditions apply” with regard to their behaviour in terms of partitivity. She also points out that cookbooks in general are a special text type: they typically lack abstract nouns.

In diachronic studies of Romance and Germanic, the registers for researching variation within the domain of abstract nouns are restricted. In some Uralic languages, the cause of variation in the case marking within the group of mass nouns can be established across more registers. In Estonian, abstract and concrete mass nouns differ as far as partitive marking is concerned.²⁴ The examined Ukrainian

²⁴ Scalar and quantificational features that are common across categories affect the behaviour of nouns, verbs, and adjectives in a regular way (e.g., Kennedy, McNally 2005, among many others). Some abstract mass nouns are inherently bounded (or quantised) without being countable. Typically, such abstract mass nouns are unbounded, following the convincing line of thought in previous research on Estonian and Finnish (Ackerman, Moore 2001; Erelt et al. 1993; Kiparsky 1998, to mention some). As a suggestion for further perspectives on understanding the variation on mass objects in Ukrainian, a finer distinction in the behaviour of abstract mass nouns derived from adjectives could be studied. In Estonian, derived abstract nouns have their own scalar and boundedness properties. For instance, if the derived abstract mass noun is based on an adjective that is scalar but has no bound (e.g., ‘popular’, ‘sad’), then the derived object is marked with

abstract nouns that differ from other mass nouns in case marking are also morphologically complex. Here, Finnic can offer new perspectives on further exploration. For instance, in Estonian, there is a significant difference between the case behaviour of abstract mass nouns based on their morphological structure, such as ‘temperature’ (underived), ‘warm(th)’ (derived), and ‘cold’ (derived).²⁵ As an interim summary, we have some supporting synchronic as well as diachronic evidence from the variation in Romance, Germanic, and Uralic languages that mass nouns vary regularly along the abstract-concrete axis. We may assume thus that Modern Ukrainian can be compared to general tendencies affecting the grammaticalisation of – and variation within – partitive structures.

Since in Modern Ukrainian, abstract mass nouns do not display a completely random pattern in case marking, we suggest examining the verb classes more precisely in their interaction with their objects. Case marking differences between concrete and abstract mass nouns are dependent on verb classification, as seen in Sections 2 and 3. Verbs that denote a change (typically, various incremental theme verbs) differ from those that do not (typically, intensional verbs). The vast literature on aspectual composition or on parallels between nouns and verbs in the tradition of Slavic studies (e.g., Mehlig 1996; Chuikova 2021) could be considered with Ukrainian mass nouns in view.

Without wishing to provide more than some suggestions for further study, we propose examining the interdependence between the lexical semantic features of the verb and the quantificational and other features of the object noun. Shifts in the lexical semantics of verbs are well attested in literature. Levin (1993, 172) discusses how verbs that are listed in one subclass of verbs are also found listed as members of other verb classes, but also highlighting that there are regularities (her discussion concerns creation verbs). Many traditional grammars list instances where the semantics of the verb undergoes a shift in figurative or metaphorical use, whereby a concrete object is understood abstractly. It has been noted in the literature that the figurative use of verbs is paired with genitive objects.²⁶

the partitive case (‘add’ V + ‘popularity/sadness’ OBJ > partitive marking); otherwise, the object is marked with the accusative case (Tamm 2014).

²⁵ While all these nouns are synonyms in temperature expressions, they can have different features of boundedness that matter for case assignment, because there is another layer of semantic features that influences case (Tamm 2011). This layer is available for adjective-based, derived abstract mass nouns such as *soe* ‘warmth, temperature above zero’ and *kūlm* ‘cold, temperature below zero’. It is not available for the equally abstract mass noun *temperatuur* ‘temperature’.

²⁶ Chuikova (2012, 102) notes that there is a strong tendency in Russian to have genitive objects that cannot be replaced by the accusative ones, if an abstract noun is used in a figurative sense or largely desemantised (part of a set phrase), and if it is not used in its direct meaning.

It cannot be excluded that a shift in verb meaning and the object case are related. They are regularly related in many languages, including for instance Finnic languages. In many Finnic languages, verbs such as ‘want a good grade’ or ‘love Mary’ have a partitive object case because of unbounded (imperfective) verb semantics. The abstractness, concreteness, countability or definiteness of the object does not matter for the object case of these verbs. If a verb allows both object cases, such as ‘find’, then the accusative typically emerges with a bounded – perfective verb meaning. The partitive occurs with the unbounded (imperfective) verb meaning. In the sense of ‘find a key’, the object is accusative, and in the metaphorical sense of ‘find it (that it is) correct’, the object is partitive. In the latter case, nothing is being ‘found’ in any concrete sense. In the lexical semantics that matters for object case, a verb like ‘find’ may fall in two classes. In some of its lexical meanings it belongs to the same class as ‘want’ or ‘love’ and differs from other concrete meanings of ‘find’.

Ukrainian object case assignment may in part occur following a similar principle of patterning with verb meaning, not any direct inherent properties of the noun. For instance, an incremental theme verb (e.g., ‘add’) whose semantics entails portioning of its theme object (or subject), is semantically shifted to another lexical semantic class. This shift may relate to metaphorical uses and abstract objects. While changes in a concrete object can be semantically mapped to the progress of an event and time transparently, this mapping becomes opaque in case of metaphors and abstract objects. Consider the difference in adding more borscht on the plate, where the changes in the events are transparently related to the object matter. On the contrary, the event of adding optimism is less transparently related to optimism.

The interpretation of an incremental theme verb crucially depends on the quantificational properties of the theme argument, but this is irrelevant with abstract nouns. With perfective verbs, the partitive genitive interpretation depends on the possibility of interpreting the object as a portion of a mass, but again, abstract nouns render this distinction irrelevant. Abstract nouns may be of indefinite quantity, but they are also difficult to interpret as ‘portionable’. Consider how to imagine a portion of experience, vigour, optimism, or confidence as opposed to a portion of borscht, water, or sugar. Abstract mass nouns, at least not typically, do not participate in the progress of an event as concrete mass nouns do. Thus, even if abstract mass nouns denote indeterminate quantity like other mass nouns or indefinite plurals, the incremental theme reading cannot readily be applied to an argument that is an abstract noun. An abstract entity cannot be portioned in increments. It seems that these increments are relevant not only for incremental theme verbs but also grammatical aspect and object case marking in Ukrainian.

Kuznetsova and Nessel (2015) show that Russian has considerable object case variation with verbs that have appeared exclusively with genitive case only in the past, such as ‘be afraid’, and they suggest that the variation is not random. We conducted an additional small scale corpus search and established that the verb *bojatsja* ‘fear, to be afraid of’ occurs in ukTenTen with the concrete singular noun *sobaka* ‘dog’ in 13 examples with the genitive case and in 3 examples with the accusative case. With the abstract noun *temrjava* ‘darkness’ and the verb *bojatsja* ‘fear, to be afraid of’, all the 110 examples that were found for this combination had a genitive object irrespective of tense, suggesting possible differences between the object case assignment of intensional verbs between modern variants of the two Slavic languages.²⁷ Additionally, we have some evidence from a small-scale experimental study, a Ukrainian discourse completion task that constrained the answers to the present tense: the objects of the intensional verb *bažaty* ‘wish’ were encoded invariantly in the genitive (Lehka, Chaika 2022). Ukrainian object case may be more dependent on verb class than the Russian one, based on our preliminary corpus and experiment-based forays into Ukrainian intensional verbs.

It is important to note that the literature on Ukrainian verb classes (Section 3) shows how entire verb classes determine the object case, either the genitive or the accusative. Both object cases pattern with abstract objects. Abstractness in itself does not change the object case pattern of a verb, as far as can be seen from the examples from the sources. Based on earlier traditional grammars, the group of accusative verbs always marks abstract objects that are only marked with the accusative, and intensional verbs have concrete noun objects that are only marked with the genitive (with exceptions under well-defined conditions). Abstract mass nouns clearly do not emerge with an inherently determined genitive. For further research, based on the possibility of parallels between nominal and verbal quantification that is reflected in object case marking, we suggest a similar avenue to explore.²⁸ Tentatively, the similarity concerns intensional verbs that frequently have abstract objects (e.g., ‘optimism’, ‘experience’, etc) and incremental theme verbs (e.g., ‘add’) used with abstract objects, which share an intentionality feature that may cause variation in object cases.

²⁷ These data reflect the total sum of singular objects in these combinations of verbs and objects. We excluded all sentences with the plural, negation and misclassifications.

²⁸ From a related study on Russian intensional verbs, we find Kagan (2012) and Pardee et al. (2012) discussing Russian genitive objects of intensional verbs in connection with negation and subjunctivity. Kagan (2012) explains the genitive of Russian abstract objects via the lack of the relative version of existential commitment.

7 Summary

This article has aimed at filling what we perceive as a gap in understanding aspect and object case alternation in Ukrainian. Ukrainian grammars often contain references to ‘partitive genitive’ and ‘partiality’ in their discussions of object case and Aktionsart prefixes. As one of the most important contributions of this article, we have reviewed the traditional grammar literature that is accessible only in Ukrainian. We have verified the descriptions from the point of view of two authors who are native Ukrainian speakers in their early twenties and a modern corpus of Ukrainian, ukTenTen 2020. We used the Sketch Engine system to provide quantifiable results and modern language samples for the relationships between Ukrainian aspect and case.

The relevant literature contains descriptions of grammatical aspect, verbs, prefixes, object case, and nominal properties, which we have used to explore the nature of the partitive genitive in Ukrainian. In the domain of verbs, we have reviewed the Ukrainian literature on aspect that characterises the verb category in Ukrainian, verbal prefixes, and verb classes in terms of their restrictions on object cases. The factors that previous sources discuss and that pertain to verb and noun semantics have been based on examples from older literary language. These factors have now been tested on a corpus containing modern Ukrainian, ukTenTen 2020. The corpus data show that there is a distinction between perfective and imperfective verbs in object case assignment. With the versions of the verb *varyty* ‘cook’, the partitive genitive appears predominantly with the perfective and not with the imperfective verb. However, as expected, the derivational Aktionsart prefix matters. Verbs with the prefix *na-* have genitive objects and significantly differ in the object case alternation from *z-/s-*, based on our study on the verb *varyty* ‘cook’. However, *do-* diverges from them in a different way, because its meaning entails an action that is completed with regard to a predefined quantity of an object. The partitive genitive is therefore simply not compatible with the semantics that the prefix *do-* imposes on the object in the discourse: quantity that cannot be ‘portioned’ further.

In our study of abstract and concrete mass nouns, we found differences in object case marking, but it was difficult to establish if the genitive was of the partitive genitive type. The question of why concrete mass nouns and abstract mass nouns display differences in object case marking has not been explicitly addressed in the Ukrainian or any other sources we consulted. We did not find references to abstract mass nouns concerning their status as instances of partitive genitive. We have established that only concrete mass nouns give straightforward empirical evidence of the phenomenon referred to as the partitive genitive in Ukrainian. Our results point towards a

variety of factors that might apply for the diverging groups of mass nouns and their emergence as partitive genitives. We have provided some evidence from diachronic and synchronic sources from other languages where a cleavage between abstract and concrete mass nouns emerges in partitives.

We have provided some pointers to further research, as we have established that the combinations vary also based on verb classes. Our finding is that the perfective aspect and nominal indefinite quantity, traditionally seen as the uniform defining features of partitive genitives, could be reconsidered. Increments are also relevant for defining the phenomenon as we see based on abstract nouns. Even if abstract mass nouns denote indeterminate quantity like other mass nouns or indefinite plurals, the incremental theme reading cannot readily be applied to an argument that is an abstract noun: it cannot be portioned in increments. Increments are thus relevant not only for incremental theme verbs but also for perfective verbs where the progress of the events is unrelated to the themes.

We offer this work as a step in the direction of explaining the relationship between aspect, verbs, and object case variation in Ukrainian.

Abbreviations and Notations

1	first person
2	second person
3	third person
ACC	accusative
DAT	dative
GEN	genitive
F	feminine
IMPF	imperfective
PERF	perfective
M	masculine
NOM	nominative
PL	plural
PREF	prefix
PRT	particle
SG	singular
PTC	participle

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**Partitive Constructions and Partitive Elements
Within and Across Language Borders in Europe**

edited by Elvira Glaser, Petra Sleeman,
Thomas Strobel, Anne Tamm

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**Partitive Constructions and Partitive Elements
Within and Across Language Borders in Europe**

edited by Elvira Glaser, Petra Sleeman,
Thomas Strobel, Anne Tamm

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The volume collects contributions that were presented at the PARTE workshop in Budapest in September 2022 or at the Partitive Online Talks, with the goal of investigating the universal and varying properties of partitive constructions and partitive elements. Since the expression of partitivity in Romance languages has been studied extensively, in this volume special attention is paid to other European languages, such as Germanic, Gaelic, Finno-Ugric and Slavic languages. With data from microvariation and variation that spans over vast geographical distances and involves various contact situations, this volume brings new insights into what is universal and what is particular in partitive constructions and elements in Europe.



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