

## Numerical Phrases in the Finnish Language\*

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In the Finnish language both a subject and an object can be indicated in the nominative case. The nominative case is not available for an object, however, when there is a nominative subject in the same clause. Contrary to this rule, a numeral of a numerical phrase serving as an object can be indicated in the nominative case, co-existing with a nominative subject. In this paper I argue that the exceptional double nominative marking can be properly explained by considering the quantitative definiteness of numerical phrases. I have already argued about the case marking of grammatical functions of the Finnish language in Sakuma (2003, 2006). The double nominative marking seems to be a counterexample to the argument of these previous studies. I will show, however, that it does not count as a counterexample. On the contrary, we can reinforce the argument of the previous studies with the explanation of the double nominative marking based on the quantitative definiteness.

### 1. Introduction

In the Finnish language the same set of cases is available to indicate the grammatical functions, the subject and the object. The cases involved in the set are the nominative, the genitive and the partitive<sup>1</sup>. Although the nominative case is the most unmarked alternative for a subject, it can also indicate an object. However, the nominative case is not available for an object, if the subject of the same predicate is marked in the nominative case. Compare the following two sentences:

- (1) *Oppilaiden täytyy lukea tämä kirja.*  
pupil-gen.pl. have to-3.sg.pr. read-1.inf. this-nom.sg. book-nom.sg.  
The pupils have to read this book.
- (2) *Oppilaat lukivat tämän kirjan.*  
pupil-nom.pl. read-3.pl.p. this-gen.sg. book-gen.sg.  
The pupils read this book.

The sentence (1) is an example of the necessitative construction. In this sentence the object is marked in the nominative case. On the other hand, the same object in (2) is marked in the genitive case. This difference is due to the fact that the subject is marked differently in each of the sentences. The subject of the sentence (1) is marked in the genitive case, while that of the sentence (2) is indicated in the nominative case. This is the reason why the nominative case is not available for the object in the sentence (2). This phenomenon can be stated as in the rule (3).

- (3) The nominative case is available for an object only when there is not a nominative subject in the same clause.

This rule means that a nominative object cannot co-exist with a nominative subject in one and the same clause. Contrary to this expectation, however, there seems to be a case where both the subject and the object are marked in the nominative case. Take the following for example:

- (4) *Kaksi miestä näki kolme naista.*  
 two-nom.sg. man-part.sg. see-3.sg.p. three-nom.sg. woman-part.sg.  
 Two men saw three women.

In this sentence both the subject and the object are made up of a numeral and a noun<sup>2</sup>. If it is not a noun but a numeral that functions as the head of the subject and the object, we should admit that in this sentence both the subject and the object are marked in the nominative case. If this is the case, how can we explain the double nominative marking in this sentence? The purpose of this paper is to explain the double nominative marking properly and examine the validity of the rule (3) stated above.

## 2. Numerals as adjectival modifiers

In the Finnish language numerals inflect in almost the same way as nouns and adjectives. The following serves as an example:

- (5) *Matka jatkettiin kolmella vanhalla autolla.*  
 journey-nom.sg. continue-pass.p. three-adess.sg. old-adess.sg. car-adess.sg.  
 The journey was continued in three old cars.

In this sentence the numeral followed by an adjective and a noun agrees in case with them. It is important to note that both the adjective and the noun in this sentence are in the singular. This means that the numeral itself is also in the singular, since a nominal modifier agrees not only in case but also in number with its nominal head. In fact, numerals have plural forms distinct from singular ones. Plural forms are employed when a numeral modifies a so-called plurale tantum<sup>3</sup>. Take the following for example:

- (6) *Minulla on kolmet silmälasit.*  
 I-adess.sg. be-3.sg.pr. three-nom.pl. glasses-nom.pl.  
 I have three pairs of glasses.

In this sentence the numeral in the plural agrees in case and number with the noun following it. What should be noticed here is that the numeral 'one' has also plural forms. For example:

- (7) *Minulla on vain yhdet silmälasit.*  
 I-adess.sg. be-3.sg.pr. only one-nom.pl. glasses-nom.pl.  
 I have only one pair of glasses.

Then, plural forms of numerals do not necessarily mean the plurality of the head noun they modify. In other words, a numeral modifying a plurale tantum should always be in the plural, whether or not the plurale tantum refers to more than one entity. On the other hand, when a numeral modifies a noun other than a plurale tantum, singular forms are used irrespective of the number of the referent in the real world. For example:

- (8) *Tämä juttu mainitaan kolmessa kirjassa.*  
 this-nom.sg. story-nom.sg. mention-pass.pr. three-iness.sg. book-iness.sg.  
 This story is mentioned in three books.

The noun modified by a numeral is in the singular in this sentence, although it refers to a plural entity.

It is more noteworthy, however, that the following sentences are NOT grammatical. That is:

- (9) \**Kolme kirja on ostoskorissa.*  
 three-nom.sg. book-nom.sg. be-3.sg.pr. shopping cart-iness.sg.  
 You have three books in the shopping cart.
- (10) \**Pöydällä on kolme kirja.*  
 table-adess.sg. be-3.sg.pr. three-nom.sg. book-nom.sg.  
 On the table there are three books.
- (11) \**Ostan kolmen kirjan.*  
 buy-1.sg.pr. three-gen.sg. book-gen.sg.  
 I'll buy three books.

In the sentences (9) and (10), the noun marked in the nominative case functions as the subject. As an adjectival modifier, the numeral in each of the sentences is also indicated in the nominative case, agreeing in case with the following subject. In the sentence (11), on the other hand, the noun in the genitive case serves as the object. The numeral in (11) is also in the genitive case in agreement with the following object.

Ungrammaticality of these sentences shows that the inflectional paradigm of a numeral as an adjectival modifier is partially defective. The nominative singular form of a numeral cannot be used as an adjectival modifier. The genitive singular form of a numeral can modify a noun in the genitive case indeed, but the noun cannot be the object. Take the following for example:

- (12) *Vertaa näiden kolmen kirjan näkökulmia.*  
 compare-2.sg.imp. this-gen.pl.<sup>4</sup> three-gen.sg. book-gen.sg. viewpoint-part.pl.  
 Compare the viewpoints of these three books.

In this sentence the noun in the genitive case is not the object and this is the reason the numeral agrees in case with it.

To sum up, when a noun functions as the subject or the object, a numeral modifying it cannot agree in case with it. Compare the following grammatical sentences with (9)–(11) respectively. That is:

(13) *Kolme kirjaa on ostoskorissa.*  
 three-nom.sg. book-part.sg. be-3.sg.pr. shopping cart-iness.sg.  
 You have three books in the shopping cart.

(14) *Pöydällä on kolme kirjaa.*  
 table-adess.sg. be-3.sg.pr. three-nom.sg. book-part.sg.  
 On the table there are three books.

(15) *Ostan kolme kirjaa.*  
 buy-1.sg.pr. three-nom.sg. book-part.sg.  
 I'll buy three books.

In these sentences the numeral that is a part of the subject or the object does not agree in case with the noun following it. The numeral is in the nominative singular form, while the noun is indicated in the partitive singular case. The question is why a numeral does not agree in case with a noun it modifies, only when it is a part of a subject or an object.

### 3. Quantitative definiteness

In the Finnish language the nominative case can indicate not only a subject but also an object. For example:

(16) *Tenttiin valitaan kirja seuraavista.*  
 examination-illat.sg. choose-pass.pr. book-nom.sg. following-elat.pl.  
 For the examination a book is chosen from the following.

This sentence is an impersonal passive sentence. In impersonal passive sentences not the genitive case but the nominative case is available for an object. This is the reason the noun in this sentence is marked in the nominative case. However, the nominative alternates with the partitive, when a numeral modifies the object. Compare the sentence (17) with the sentence (16).

(17) *Tenttiin valitaan kolme kirjaa seuraavista.*  
 examination-illat.sg. choose-pass.pr. three-nom.sg. book-part.sg. following-elat.pl.  
 For the examination three books are chosen from the following.

In this sentence the numeral itself is in the nominative, while the noun following it is in the partitive case.

On the other hand, a numerical modifier of both the partitive subject and the partitive object does always agree in case with a noun it modifies. Take the following for example:

(18) *Ihmisellä ei ole kolmea kättä.*  
 human-adess.sg. not-3.sg. be three-part.sg. hand-part.sg.  
 Human beings do not have three hands.

- (19) *Luen kolmea kirjaa samaan aikaan.*  
 read-1.sg.pr. three-part.sg. book-part.sg. same-illat.sg. time-illat.sg.  
 I'm reading three books at the same time.

In the sentence (18) the numeral is a part of a partitive subject and it is indicated in the partitive case. In the sentence (19) the numeral is contained in a partitive object and it is also marked in the partitive case. Then, we should consider what is the difference between the sentence (17) on one hand and the sentences (18)–(19) on the other hand.

What is important is that in the Finnish language quantitative definiteness plays a crucial role in determining the case marking of grammatical functions<sup>5</sup>. Grammatical functions marked in the partitive case are quantitatively indefinite, while those marked either in the nominative case or in the genitive case are quantitatively definite. Quantitative definiteness means that the referent in question is indivisible. Therefore, the referent of a countable noun in the singular is quantitatively definite. On the other hand, the referent of a countable noun in the plural is quantitatively indefinite, except when it serves as a subject. This is the reason a plural object is indicated in the partitive case in principle. Thus the case marking pattern of grammatical functions can be schematized as follows:

		subject <sup>6</sup>	object
definite	singular	nominative	genitive – nominative
	plural	nominative	
indefinite		partitive	partitive

However, as far as a subject or an object modified by a numeral is concerned, the case marking pattern is somewhat different. We shall discuss it in detail. When we say 'I have read some books,' we do not intend to report the exact number of the books we have finished to read. When we say 'I have read three books,' however, the number of the books is relevant information to the message conveyed by the sentence. Compare the following two sentences with each other:

- (20) *Olen lukenut kirjoja.*  
 be-1.sg.pr. read-p.p. book-part.pl.  
 I have read some books.
- (21) *Olen lukenut kolme kirjaa.*  
 be-1.sg.pr. read-p.p. three-nom.sg. book-part.sg.  
 I have read three books.

In the sentence (20) the partitive object is cumulative. This means that each subpart of 'some books' qualifies as an instance of some books. In other words, the object in (20) is divisible. On the other hand, the object in (21) is quantized by a numeral modifying it<sup>7</sup>. Thus each subpart of 'three books' cannot be qualified as an instance of three books. This means that the object in (21) cannot be divided.

Accurately speaking, 'three books' can be interpreted in two different ways. One is a strong specific reading, which refers to three specific books contrasted with a whole set of books. The other is a weak existential reading, which refers to the mere existence of three books<sup>8</sup>. If the latter reading is applicable, 'three books' can be regarded as QUALITATIVELY indefinite indeed. That 'three books' is QUANTITATIVELY definite, however, still holds whether or not the latter reading is available.

In short, a subject and an object modified by a numeral are quantitatively definite and they should be distinguished in some way from a partitive subject and a partitive object. What should be noticed here is that quantitative definiteness is due to the existence of a numeral modifying a subject or an object. Thus a numeral needs to have a distinct marker to show quantitative definiteness.

A numeral agrees in case and number with a noun it modifies, except when it functions as a part of a subject or an object. This means that a numeral is treated just in the same way as an adjective. A numeral and a noun constitute a noun phrase, where a numeral and a head noun agree in case and number with each other. A numeral adds to the noun phrase in question a piece of information about the number of the head noun and this added information makes the noun phrase quantitatively definite. It is important to note, however, that the Finnish language does not draw a distinction between definiteness and indefiniteness explicitly in a phrase other than a subject and an object. Compare the following sentences:

(22) *Raporteissa mainittiin useita kysymyksiä.*  
 report-iness.pl. mention-pass.p. many-part.pl. question-part.pl.  
 In some reports many questions were mentioned.

(23) *Raportissa mainittiin useita kysymyksiä.*  
 report-iness.sg. mention-pass.p. many-part.pl. question-part.pl.  
 In a report many questions were mentioned.

(24) *Kolmessa raportissa mainittiin useita kysymyksiä.*  
 three-iness.sg. report-iness.sg. mention-pass.p. many-part.pl. question-part.pl.  
 In three reports many questions were mentioned.

These sentences differ in definiteness indeed, but the noun and the numeral are marked identically in the inessive case.

As far as a subject or an object is concerned, however, definiteness and indefiniteness are explicitly distinguished by using a different case for each instance. For example:

(25) *Ministeriö äskettäin julkaisi raportteja.*  
 ministry-nom.sg. recently publish-3.sg.p. report-part.pl.  
 The ministry recently published some reports.

(26) *Ministeriö äskettäin julkaisi raportin.*  
 ministry-nom.sg. recently publish-3.sg.p. report-gen.sg.  
 The ministry recently published a report.

When the referent of a subject or an object is indefinite in quantity, it is indicated in the partitive case. On the other hand, a definite subject and a definite object cannot be marked in the partitive case. This means that the difference in definiteness is highly relevant for the case marking of a subject and an object. To put it another way, a mere agreement between a numeral and a noun it modifies is not sufficient for a subject and an object to show quantitative definiteness.

Moreover, when a phrase containing a numeral has a strong specific reading, a part-whole relation is presupposed. This relation cannot be indicated by a mere agreement between a numeral and a noun it modifies. In order to indicate a part-whole relation, the partitive case is available in the Finnish language. This usage of the partitive case can be exemplified by the case marking of mass nouns. When a mass noun serves as an object, it is indicated in the partitive case. This is because a mass noun is uncountable and therefore quantitatively indefinite. Take the following for example:

- (27) *Juodaan kahvia.*  
 drink-pass.pr. coffee-part.sg.  
 Let's drink coffee.

In this sentence the object is indicated in the partitive case to show that its referent is a part of the divisible entity. If we want to delimit the quantity of a mass noun, we should employ a noun of measure. A noun of measure can be marked in the nominative case or in the genitive case indeed, but a mass noun itself remains in the partitive case. For example:

- (28) *Juodaan kuppi kahvia.*  
 drink-pass.pr. cup-nom.sg. coffee-part.sg.  
 Let's drink a cup of coffee.

In this sentence the noun *kuppi*, which serves as a noun of measure, is indicated in the nominative case, while the mass noun *kahvi* is still indicated in the partitive case.

What should be noticed here is that the combination of a noun of measure in the nominative case and a mass noun in the partitive case is similar to that of a numeral in the nominative case and a noun in the partitive case. That is:

- (29) *Olen lukenut kolme kirjaa.*  
 be-1.sg.pr. read-p.p. three-nom.sg. book-part.sg.  
 I have read three books (= (21)).

This means that a part-whole relation a numeral entails is expressed by marking a noun it modifies in the partitive case, just in the same way as a mass noun modified by a noun of measure.

A numeral in the nominative case and a noun in the partitive case constitute a numerical phrase, the head of which is not a noun in the partitive case but a numeral in the nominative case. If this is the case, it is not a noun but a numeral that alternates in case forms according to the syntactic environment it appears in. In fact, a noun of measure can be indicated in different cases. Take the following for example:

(30) *Otan kupin kahvia*  
 take-1.sg.pr. cup-gen.sg. coffee-part.sg.  
 I take a cup of coffee.

(31) *Kupissa kahvia on noin 100mg kofeiinia.*  
 cup-iness.sg. coffee-part.sg. be-3.sg.pr. about caffeine-part.sg.  
 A cup of coffee contains about 100mg of caffeine.

A numeral in a numerical phrase, however, is never marked in any other case than the nominative. This is partly because a numeral has another construction available, where a numeral agrees in case and number with a noun it modifies. However, this alternative construction is not available for a definite object. Then, neither of the following sentences is grammatical.

(32)\**Olen lukenut kolmen kirjaa.*  
 be-1.sg.pr. read-p.p. three-gen.sg. book-part.sg.  
 I have read three books.

(33)\**Olen lukenut kolmen kirjan.*  
 be-1.sg.pr. read-p.p. three-gen.sg. book-gen.sg.  
 I have read three books.

Compare these two sentences with the sentence (29) above. Although the numerical phrase in these sentences serves as an object, the numerical head cannot be indicated in the genitive case. Thus the question is why a numerical head cannot take a genitive form<sup>9</sup>.

Before turning to the question, however, a few remarks should be made concerning another numerical phrase found in the Finnish language. A numeral in the nominative case can be combined not only with a noun in the partitive singular but also with a noun in the elative plural. For example:

(34) *Olen lukenut kolme kirjoista.*  
 be-1.sg.pr. read-p.p. three-nom.sg. book-elat.pl.  
 I have read three of the books.

A numeral and a noun in the elative plural constitute a phrase, in which a numeral serves as a phrasal head. As mentioned above, a numeral combined with a noun in the partitive case cannot take a genitive form. The same observation applies to this phrase. When this phrase serves as an object, a numeral in the nominative case remains unchanged. Compare the sentence (34) with the following:

(35)\**Olen lukenut kolmen kirjoista.*  
 be-1.sg.pr. read-p.p. three-gen.sg. book-elat.pl.  
 I have read three of the books.

To explain the ungrammaticality of the sentence (35), we should explore the reason a numerical head cannot take a genitive form.

To answer this question, we should first consider the difference between a numeral and a noun of measure. When a noun of measure is indicated in the genitive case, it is in the singular. This is because the genitive case is available only for a singular object. We should not overlook that a numerical head in question is always in the singular, irrespective of its meaning. In other words, a numerical head is in the singular in form but in the plural in meaning. Thus one explanation for the unavailability of a genitive form may be that a numerical head is effectively in the plural. It cannot be marked in the genitive case, since the genitive plural is not available for an object.

Moreover, the syntactic environment in which the genitive case is available for an object is restricted. To put it the other way round, such environment is easily identifiable. Then, the genitive marking of an object is not necessarily indispensable. As a matter of fact, an object in the genitive case and a subject in the nominative case cannot be distinguished from each other, when a possessive suffix is added to them. For example, *minun kirjani* ‘my book’ can function not only as a nominative subject but also as a genitive object. The same may be said of a numerical phrase.

In the Finnish language, both a plural subject and a plural object are marked in the nominative case, when their referent is quantitatively definite. If a numerical head, which is quantitatively definite, is effectively in the plural, the nominative plural may be available for it. However, the plural forms of a numeral should be kept for pluralia tantum. One possibility is to assume that a numeral in the nominative singular can serve as the nominative plural for the occasion. There is not much evidence in favor of this argument, but it is worth considering, since the morphological distinction between the nominative singular and the nominative plural is also neutralized when a noun is followed by a possessive suffix. For example, *minun kirjani* ‘my book(s)’ can be interpreted either as the nominative singular, as the genitive singular or as the nominative plural.

Anyway, from what has been said above, we can safely state that a numerical head in question is a hybrid between the singular and the plural on the one hand and between the nominative case and the genitive case on the other hand. In other words, the morphological distinction is partially neutralized in the Finnish language, so far as a numeral is concerned. From this fact it follows that there can be a sentence in which both the subject and the object is marked in the nominative case. Thus we should revise the rule (3) stated above as follows:

- (36) The nominative case is available for an object in the singular only when there is not a nominative subject in the same clause.

In (36) a phrase ‘in the singular’ is added to the rule in order to explain the double nominative marking properly. As we noted before, the distinction between the singular and the plural is neutralized when an object contains a numeral. Thus the rule (36) is not applied to such an object containing a numeral.

Moreover, in the Finnish language, a plural object can sometimes be marked in the nominative case even when there is a nominative subject in the same clause. Take the following for example:

- (37) *Oppilaat lukivat kaikki nämä kirjat.*  
 pupil-nom.pl. read-3.pl.p. all this-nom.pl. book-nom.pl.  
 The pupils read all these books.

In this sentence, the object is modified by a determiner, which makes the object highly definite, and this definiteness is the reason for the nominative marking of the object. This sentence, however, is not a counterexample to the rule (36), since the object is not in the singular but in the plural.

A plurale tantum is also marked in the nominative case, when it functions as the object. The following serves as an example:

- (38) *Oppilas osti kolmet silmälasit.*  
 pupil-nom.sg. buy-3.sg.p. three-nom.pl. glasses-nom.pl.  
 The pupil bought three pairs of glasses.

In this sentence both the subject and the object are indicated in the nominative case. However, it does not count as a counterexample to the rule (36), since a plurale tantum is always in the plural. It is interesting to note that a plurale tantum is indicated in the nominative plural even when it is modified by *yksi* 'one'. For example:

- (39) *Oppilas osti yhden silmälasin.*  
 pupil-nom.sg. buy-3.sg.p. one-nom.pl. glasses-nom.pl.  
 The pupil bought a pair of glasses.

#### 4. Conclusion

From what has been said above, we should conclude that the rule (3) holds in most of the cases but it needs a slight modification. At first glance, the case marking pattern of the Finnish language seems to be partially defective, since the distinction between the nominative case and the genitive case for grammatical functions is not available in the plural. When a plural object is definite in quantity, it is marked not in the genitive case but in the nominative case. This is due to the fact that plural objects are usually considered to be quantitatively indefinite. As a default, plural objects are marked in the partitive case. The double nominative marking is exceptional indeed, but a default indefinite interpretation of a plural object is not obtained, if the genitive plural is available as an alternative. In other words, a default indefinite interpretation follows from abandoning the genitive marking of a plural object. Thus we see that the case marking pattern of the Finnish language is built upon the distinction between the definiteness and the indefiniteness in quantity. It can be schematized as follows:

		subject	object
definite	singular	nominative	genitive – nominative
	numeral	nominative	nominative
	plural	nominative	(nominative) <i>cf.</i> (37)
indefinite		partitive	partitive

### Notes

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- 1 According to the traditional grammar, the *-n* case assigned to a singular object is called the accusative. The so-called accusative case is, however, identical in form with the genitive case in the singular and with the nominative case in the plural. Only the personal pronouns have a distinct accusative form. Thus I don't use the term 'accusative' as far as nominals other than the personal pronouns are concerned. For a discussion of the case marking of grammatical functions in the Finnish language, see Sakuma (2003, 2006) for example.
  - 2 Useful information on the numerals of the Finnish language is contained in Hakulinen et al. (2004: 750–766). For a discussion of the syntactic interpretation of numerical expressions, see Dolbey (1998) and Karlsson (1971) for example.
  - 3 Pluralia tantum of the Finnish language can be divided into three groups. The first group refers to entities which are made up of two parts. Examples of this are *silmälasit* (glasses), *bousut* (trousers), *sakset* (scissors), *sukset* (skis), *kasvot* (face), *aivot* (brain), *vanhemmat* (parents) and so on. The second refers to entities which are made up of many parts. *Sisarukset* (brothers and sisters) and *tuliaisat* (presents) are examples of this. The third refers to ceremonies or occasions like *häät* (wedding), *hautajaiset* (funeral), *markkinat* (market) and *olympialaiset* (the Olympic Games). For further details of Finnish pluralia tantum, see Hakulinen et al. (2004: 553–559).
  - 4 It is interesting to note that the demonstrative is in the plural, while both the numeral and the noun following it is in the singular.
  - 5 For further details of the definiteness in the Finnish language, see Chesterman (1991) and Itkonen (1980) for example.
  - 6 For subjects of non-finite predicates the nominative case is not available. They are indicated in the genitive case irrespective of their number.
  - 7 For a detailed argument for the distinction between cumulative objects and quantized objects, see Krifka (1998) and Ackerman & Moore (2001: 99–104).
  - 8 For a discussion of the difference between a strong and a weak reading of numerical expressions, see Ackerman & Moore (2001: 127–128).
  - 9 Needless to say, a numeral can take a genitive form, when it agrees in case and number with a noun it modifies.

### Abbreviations

nom.—nominative	gen.—genitive	part.—partitive	iness.—inessive
illat.—illative	elat.—elative	adess.—adessive	sg.—singular
pl.—plural	pr.—present	p.—past	p.p.—past participle
inf.—infinitive	imp.—imperative	pass.—passive	

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