CASE MARKING IN ESTONIAN GRAMMATICAL RELATIONS[*]

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Abstract

This paper takes a typological approach to the case marking on subjects and objects in Estonian. The aim of the study is to establish whether case marking can be seen as a straightforward indicator of definiteness in Estonian grammatical relations. The discussion is based on the Transitivity Hypothesis put forward by Hopper & Thompson (1980). Hopper and Thompson see transitivity as a cover term for various characteristics of a clause that specify its degree of effectiveness. The current paper illustrates that the Transitivity Hypothesis in broad terms is able to account for the case variation of Estonian subjects and objects. It also shows that the hypothesis needs to make a more subtle distinction of possible noun phrases constituting the subject relation in terms of Individuation. In Hopper and Thompson's theory this characteristics has been assigned to object arguments only. In conclusion, the current study states that in Estonian case marking reflects the transitivity of a clause, but is not a transparent indicator of grammatical relations.

1   Introduction

As this paper is typological in nature, it sets out to investigate the applicability of a cross-linguistically valid hypothesis of transitivity (Hopper & Thompson 1980) on the empirical data of a lesser-studied language. The main focus is on the case marking of subjects and objects in a language with extensive case marking. It also investigates the factors that define the assignment of a particular morphological case in these functions. As we will see in the following sections, the relevant factors defining the Estonian object marking can comfortably be accommodated under the current view of transitivity (Hopper & Thompson 1980). Hopper & Thompson see transitivity as a cover term uniting several factors that all contribute to the effectiveness of a clause. Nevertheless, it fails to correctly predict the case assignment in the subject relation. Further, there have been claims in the literature that languages can express definiteness via case marking (see e.g. Abraham 1997, Philippi 1997). Definiteness forms a component of transitivity and thus we could hypothesise that a language is able to express transitivity via morphological case marking. The link between definiteness and a particular morphological marking has been shown to be valid for Finnish (Nelson 1998a, b; Kiparsky 1998). Our intention is to investigate whether the same conclusion can be extended to Estonian, another Finno-Ugric language.

In order to study the connection between transitivity and case marking, we limit our discussion to three types of simple sentences: basic transitives, intransitives and existentials. Without arguing for the syntactic status of subjects and objects in Estonian, we rely on the existing literature dealing with these questions (e.g. Erelt et. al. 1993, Erelt et. al. 2003, Erelt (ed.) 2003 and Hiietam 2003) and base our discussion on conclusions drawn thereof.

After spelling out the case assignment facts in Estonian in Section 1.1, a short summary of previous approaches in Estonian linguistics to case variation in subject and object positions will be given in Section 2. Thereafter, Section 3 outlines the nature of Hopper & Thompson's (1980) hypothesis. Section 4 accounts for the factors conditioning the use of the nominative or partitive in subject position, and partitive, accusative and nominative case in the object position. It also shows that a more detailed account of the Transitivity Hypothesis correctly predicts the case assignment patterns in grammatical relations in Estonian. Finally, Section 5 concludes the main arguments of the discussion.

1.1   Case Marking patterns.

To aid the reader in following the argumentation below, we summarise the basic facts of case assignment in Estonian transitive, intransitive and existential constructions.[1]

The case-marking pattern that emerges for subjects (in bold) is as follows: in basic transitive sentences subjects occur solely in the nominative (ex. 1a,b) whereas in intransitives (ex. 1c, 2a) and existentials (ex. 1d, 2b), they occur as nominative and partitive:

(1) (a) **Poiss**   luges   *raamatut.*   [T1]
          boy.NOM   read.PAST.3.SG   book.PART
          'The boy was reading a/the book.'

     (b) **Poiss**   luges   *raamatu*   läbi.   [T2]
          boy.NOM   read.PAST.3.SG   book.ACC   through
          'The boy read the book through.'

     (c) **Poiss**   seisab.   [IT1]
          boy.NOM   stand.3.SG
          'The boy is standing.'

     (d) **Lilled**   kasvavad   siin.   [Ex.1.]
          flower.PL.NOM   grow.3PL   here
          '**The flowers** grow here.'

(2) (a) **Inimesi**   sõitis   maale.   [IT2]
          people.PART   drive.PAST.3.SG   countryside.ALL
          'Some people drove to the countryside.' (Nemvalts 1996:107)
     (b) Siin   kasvab   **lilli**.   [Ex.2.]
          here   grow.3SG   flower.PL.PART
          'There are **some flowers** growing here.'

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[1] In our discussion we will use the following coding system to mark the sentences under observation:
T1 – basic transitive construction with a nominative preverbal and partitive postverbal argument.
T2 – basic transitive construction with a nominative preverbal and an accusative postverbal argument.
IT 1– intransitive construction with a nominative argument.
IT2 – intransitive construction with a partitive argument.
Ex1 – existential construction with a nominative argument.
Ex2 – existential construction with a partitive argument.   IMP – imperative construction

For objects (in italics) the possible cases in transitive constructions are partitive (ex. 1a) or accusative (ex. 1.b) as shown above. [2]

How has this case variation been accounted for?

2   Case Variation – Previous Approaches

This section summarises the traditional approaches to the subject and object marking in Estonian and thus provides the background for the discussion to follow. We start with the subject relation and in section 2.2 move on to the object marking.

2.1   Case Marking in Subject Position

According to the most recent academic grammar of Estonian, (Erelt et.al. 1993: 10, 39, 41, 43) prototypical subjects are nominative nominals in transitive and intransitive sentences and nominative or partitive noun phrases in existential constructions. The nominative-partitive alternation in existentials is claimed to be dependent on various factors. The most prominent ones are a sentence level characteristic – polarity – and a noun phrase (NP)-related property – quantification. In general, the negative polarity of the sentence does not affect the subject marking, except in existential sentences, where the subject always stands in the partitive. The NP-related property, quantification, has consequences for the morphological marking of the NP. Quantification here is defined as limitedness (or boundedness). This is a parameter indicating whether the subject NP is a clearly defined and distinguishable referent e.g. *flowers* in example (3a), or not limited, as in *some flowers* (example 3b). In general the nominative tends to mark a referent that is limited in some way; and the partitive marks an unlimited one.

(3)   (a)   Peenral   kasvasid   **lilled**.
              flowerbed.ADE   grow.3.PL   flower.PL.NOM
              'In the flowerbed there grew **flowers**.' (Erelt et.al. 1993:39)
                                                                      (a   limited
                                                                      nominal)

       (b)   Peenral   kasvas   **lilli**.
              flowerbed.ADE   grow.3.SG   flower.PL.PART
              'In the flowerbed there grew **some flowers**.'
                                      (Erelt et.al. 1993:39) (an unlimited nominal)

Based on these facts, nominative case is linked to the affirmative polarity of the construction and the limitedness of the referent and/or activity, whereas partitive case on the subject is associated with the negative polarity of the sentence and the unlimitedness of the referent.

In various accounts in Estonian linguistics, the key term explaining the nominative-partitive case alternation in subject position has been transitivity of the verb, i.e. its ability to bind an object (e.g. Rannut 1964, Valgma & Remmel 1968,

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[2] In this paper we consider accusative case to mark limited objects in perfective constructions in line with Ackerman & Moore 1999. This approach is an alternative view to the more traditional perspective, where definite objects are claimed to be marked with the genitive (see e.g. Erelt et.al. 1993, Erelt (ed.) 2003 and Kiparsky 2001 for Finnish). For syntactic argumentation for the accusative in Estonian see Hiietam 2003, Chapter 2.

Mihkla et.al. 1974, Mihkla & Valmis 1979, Erelt et.al. 1993). However Nemvalts (1996:74-75), disagrees with this and suggests that transitivity should be 'treated principally as a property of a situation and sentence'. With this he emphasises that transitivity extends beyond the strict argument structure of a verb and should be seen as a combination of syntactic (argument structure) and pragmatic-semantic characteristics (aspectual properties and the role of the sentence in the discourse). This view is much in line with the Hopper & Thompson hypothesis. Further, he proposes that it would be more correct to state that in transitive sentences the nominative subject is the sole possibility and is distinguished from the object by means of case marking. He also considers the unmarked form for subjects to be the nominative, while for objects it is the partitive, as illustrated in (4). The subject would therefore be 'children', and the object – 'the ball':

(4)   Õues   mängisid   lapsed   palli.
        yard.INE   play.PAST.3.SG   child.PL.NOM   ball.PART
        'There were children playing ball in the yard.' (Nemvalts 1996:74)[3]

        Nemvalts claims that transitivity, understood as the verb's ability to bind an object lacks explanatory force in accounting for the case variation on subjects in intransitive sentences. The fact that the object is missing, i.e. intransitivity, as Nemvalts puts it, does not shed light on the case variation in the subject position. Moreover, the Estonian intransitive verbs divide into three groups depending on the case marking of their argument. Firstly, there are verbs that only allow nominative subjects e.g. *algama* 'to begin', *võpatama* 'to wince'. Secondly, there are verbs that only allow partitive subjects. These include *jätkuma,* 'to suffice' *tunduma* 'to seem'.[4] And finally, the third group of verbs allows both nominative and partitive subjects, such as e.g. *kaasnema,* 'to concur', *tekkima* 'to be generated', *mängima* 'to play', as illustrated in (5):

(5)   (a)   Õues   mängis   **lapsi**.
                yard.INE   play.PAST.3.SG   child.PL.PART
                'There were **some children** playing in the yard.' (Nemvalts 1996:74)

        (b)   Õues   mängisid   **lapsed**.
                yard.INE   play.PAST.3.PL   child.PL.NOM
                'There were **children** playing in the yard.' (Nemvalts 1996:74)

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[3] Nemvalts chooses to translate the word 'õues' with *in the yard* in English. However, since 'õues' is more often used to mean 'outside', we have opted for this translation.

[4] Nemvalts (1996:77) has pointed out that there are only four verbs in Estonian which take partitive subjects: *jaguma* 'to suffice', *jätkuma* 'to last', *piisama* 'to be enough', *tunduma* 'to be felt' which do not condition any sentence pattern with a nominative or dual-case subject phrase, as illustrated in (a):
(a)Sul   jagub   raha.
   2.SG.ADE   suffice.3.SG   money.PART
   'You have enough money.'
It is also possible to argue that the partitive nominal is not the subject, since in certain syntactic constructions, such as subject-to-subject – and subject-to-object raising, it is the oblique and not the partitive NP that acts as the sentential pivot (see Hiietam 2003: Chapter 8, footnote 3 for more discussion).

In conclusion, Nemvalts states that the subject marking in intransitives, and even more so in existential constructions is influenced by many interacting factors – semantic, syntactic and also pragmatic. However, he concludes that it is difficult to give a straightforward account of subject marking (Nemvalts 1996:134) and it is this problem that we attempt to address in the present paper.

To summarise, the two accounts outlined here involved the number of arguments that a verb can bind, i.e. the very narrow view of transitivity and a wider approach which suggested transitivity should be seen as a sentence level property. We will adopt the latter view in line with the Transitivity Hypothesis and show that this sentence level property embraces an array of different characteristics of both arguments of the verb; all of which did not get sufficient treatment in Nemvalts (1996). This leads us to the next controversial topic related to transitivity, namely object marking.

2.2   Case Marking in Object Position

The Estonian object marking has been under discussion since the middle of the 19th century. One of the early accounts states that objects get variable case marking depending on their definiteness (e.g. Ahrens 1853). More recent literature states that the choice of the object marking in Estonian is mainly dependent on two kinds of factors (Erelt et.al. 1993: 46-54, Erelt et.al. 2000: 377-383); Rajandi & Metslang 1979, Nemvalts 1996, Klaas 1999; Blake 1994:153):

1) Those connected to the verb - mainly to do with the aspectuality, and [5]

2) Those connected to the object noun phrase – definiteness, specificity and quantitative limitedness.

The last two terms can be merged under a cover term – 'boundedness'. Also a sentence level property can be added in this list, namely the polarity of the clause. Below we consider both groups of factors.

2.2.1   Features on Verbs

Estonian verbs can be divided into two classes: aspectual and non-aspectual ones. Non-aspectual verbs, the ones that denote an indefinite, i.e. atelic action, take only partitive objects. Several classifications of Estonian non-aspectual verbs have been offered. The semantic range of partitive verbs is wide and any attempt to group them still leaves us with a group titled 'various other verbs'. The unifying feature of all these verbs is that they express an atelic event or a state of mind e.g. cognition, physical impact, progression or evaluation (Klaas 1999; Õim 1983:192-236; Erelt et.al. 1993: 50).

As opposed to partitive verbs, aspectual verbs can take both partitive and non-partitive objects when in the affirmative (Erelt et.al. 1993: 51), as illustrated in (6) and (7). The difference between these two examples is that the former expresses an imperfective activity, whereas the latter expresses a perfective event, and this aspectual difference is captured in the object case marking:

(6)   Jaan   ehitas   paati.

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[5] Although in Slavic linguistics the term aspectuality is used to refer to the distinct verbal forms for completed and ongoing activities. In our treatment it refers to the ability of a sentence to express either a completed or not completed event since Estonian does not have any specific verbal affixes for this purpose. Thus, aspectuality here can be take as parallel to the term 'telicity'.

      J.NOM   build.PAST.3.SG   boat.PART
      'Jaan was building a boat'

(7)   Jaan   ehitas   paadi   valmis.
       J.NOM   build.PAST.3.SG   boat.ACC   ready
      'Jaan finished building the boat.'

2.2.2   Features on Object Noun Phrases

One of the most influential features connected to the object marking is quantitative limitedness, or boundedness. The previous section demonstrated that the partitive was compatible with the imperfective aspect of the sentence. How does the variable case marking map with the boundedness of the object NP?

Erelt et.al. (1993:51-52) state that the object is not in the partitive when both the activity and the object NP are limited, see example (7). The partial object, i.e. the object NP in partitive case on the other hand, is used when the activity and the object phrase or either one of them is unlimited, as was illustrated in (6). Erelt et.al. (1993) conclude that the partitive signals the unboundedness of the object NP; and hence, on the basis of our data we can state that the accusative signals a bounded object noun phrase.

Also, the nominative has been pointed out as one of the object cases, namely in impersonal constructions (8), imperative constructions (9) and in sentences with an infinitival clause (10) (Erelt et.al. 1993: 53):

(8)   Raamat   pandi   riiulile.[6]
      book.NOM   put.PAST.IMPS shelf.ALL
       'The book was put on the shelf.'   (Erelt et.al. 1993: 53)

(9)   Anna   pliiats   siia!
      give.IMP   pencil.NOM   here
       'Give the pencil here!'   (Erelt et.al. 1993: 53)

(10)   Meil   tuleb   vaheaeg   teha.
      1.PL.ADE   must.3.SG   break.NOM   make.INF
         'We need to make a break.'   (Erelt et.al. 1993: 53)

Although imperatives is only one of the environments where nominative objects occur, for our purposes we will limit our discussion solely to them in section 4.2.2.

2.3   The Definiteness Effect

How does the outlined case variation in grammatical relations correspond to the definiteness effect? Erelt et.al. (1993: 10, 41) and Nemvalts (1996:107) state that a prototypical subject is definite and hence definiteness in the subject position is connected to the nominative case. When the subject is indefinite, there are three ways of marking it:

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[6] Since the topical noun phrase in impersonal constructions does not possess all syntactic object properties (partitive case under negation and passivisation), Hiietam (2003: Chapter 6) has argued that this NP can be classified as neither a subject or object and is therefore considered to be somewhere in between these relations. This is the reason why arguments in impersonal constructions are not discussed in the present paper.

1) morphologically by the partitive case (Nemvalts 1996:107),
    see example (11);
2) syntactically by an indefinite quantifier, e.g. üks 'one', mõni 'some', etc.
   (Nemvalts 1996: 56-60; Erelt et.al. 1993: 41), see example (12); or
3) morpho-syntactically by an indefinite modifier that is part of the subject NP
   in the partitive case (Nemvalts 1996: 56-60), see example (13):

(11)   Inimesi   sõitis   maale.
        people.PART   travel.PAST.3.SG   countryside.ALL
        'Some people travelled to the countryside'. (Nemvalts 1996:107)[7]

(12)   Ükski   mees   pole   majas.
        one.not.even   man.NOM   be.NEG   house.INE
        'Not a (single) man is in the house'   (Nemvalts, 1996:57, example (17.2))

(13)   Majas   pole   ühtegi   meest.
        house.INE   be.NEG   one.not.even man.PART
        'Not a (single) man is in the house.' (Nemvalts, 1996:57, example (17.1 c)

In addition to indefiniteness, Nemvalts (1996:132) links partitive case on subjects with 'unspecificness', i.e. lack of specificity.[8] Judging from the examples that he has given to illustrate unspecificness, e.g. in (14), it seems to be that he considers indefiniteness and unspecificness to be parallel terms:

(14)   Inimesi   ei   olnudki   toas,   vaid
        (üksnes)
        people.PART   NEG   be.PRTC.even room.INE   but   only

        õues.
        outside.INE
        'There was certainly nobody in the room, but (only) outside.'

The partitive subject NP can only have an indefinite reading since it denotes an unlimited set of referents; hence it is an unbounded noun phrase. To say that this noun phrase is unspecific also means that the referent of the NP is not limited or clearly defined. Therefore we consider Nemvalts' term 'unspecificness' to refer to indefiniteness.

The generalisation that emerges from this pattern is that nominative subjects are perceived as more specific and definite than partitive ones. This is valid for both transitive, intransitive and existential sentences. Object marking, on the other hand, seems to depend on the aspectuality of the clause and the boundedness of the noun phrase.

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[7] The translation Nemvalts offers is as follows: 'People travelled to the countryside'. Although the translation Nemvalts uses is correct in the sense that the subject NP does not denote a strictly limited referent, the native speakers consulted have informed me that 'some people' would be a more appropriate translation of the partitive subject NP in Estonian.
[8] For our purposes, specificity is defined as identifiable to the speaker but not to the hearer. Indefiniteness, on the other hand, indicates that neither speaker nor hearer are familiar with the referred entity.

3   The Transitivity Hypothesis

In this section we will give a brief overview of Hopper & Thomson's (1980) (henceforth H&T) Transitivity Hypothesis. Hopper and Thompson see transitivity as a scalar property of a clause. This property is formed by reference to various parameters and depending on the nature of these parameters, a clause can be more or less transitive. As Hopper and Thompson put it, these parameters are connected to the 'effectiveness' of the clause, indicating whether or to what extent the activity expressed by the lexical verb is completed. According to Hopper and Thompson, transitivity is traditionally seen as 'carrying over' or 'transferring' an action from an agent to a patient. A traditional transitive sentence should hence have two participants and an action that is completed or has an endpoint (H&T, 1980:251-254). Transitivity involves various components and Hopper and Thompson state that these components co-vary within languages. They also suggest that transitivity is a universal salient property of languages in general; that it has 'a number of universally predictable consequences in grammar' (H&T 1980: 251), and its defining properties are determined by discourse.

To give a systematic overview of the parameters of transitivity, they are presented in Table 1, as given in H&T (1980: 252). The parameters are in the leftmost column and their values follow in the next two columns.

Table 1 Parameters of transitivity and their qualities.

	HIGH TRANSITIVITY	LOW TRANSITIVITY
A. PARTICIPANTS	2 or more participants	1 participant
B. KINESIS	action	non-action
C. ASPECT	Telic	Atelic
D. PUNCTUALITY	Punctual	non-punctual
E. VOLITIONALITY	volitional	non-volitional
F. AFFIRMATION	Affirmative	Negative
G. MODE	Realis	Irrealis
H. AGENCY	A high in potency	A low in potency
I. AFFECTEDNESS OF O	O totally affected	O not affected
J. INDIVIDUATION OF O	O highly individuated	O non-individuated

The more properties a clause has from the column labeled *High Transitivity*, the higher its transitivity is considered to be.

In the following, parameters of transitivity are characterised more closely:

(A) PARTICIPANTS – transfer is only possible if there are at least two participants,[9]

(B) KINESIS – actions can be transferred from one participant to another, but not states.

(C) ASPECT – a telic, completed action is of higher transitivity since it is 'more effectively transferred to a patient' than an atelic one (H&T 1980:252). H&T define telicity as follows: a predicate which specifies an endpoint or conceptual boundary is said to be telic, while one which does not is atelic.

(D) PUNCTUALITY –continuous actions affect the patient less than actions which have a marked starting point and endpoint.

(E) VOLITIONALITY – when A acts purposefully, the patient is typically more affected.

(F) AFFIRMATION – the affirmative-negative parameter. Affirmative clauses are considered more transitive than negative ones.

(G) MODE – This is the realis-irrealis parameter. An event that does not occur or which occurs in a non-real world is less effective than one that corresponds to a real event.

(H) AGENCY – Subjects high in Agency can affect the transfer of an action in a more effective way that those low in Agency.

(I) AFFECTEDNESS OF O – the transitivity of a clause is higher when the O is totally affected than when it is only partially affected by the activity.

(J) INDIVIDUATION OF O – this parameter measures how distinct O is from A and also from its background. A definite O is considered more completely affected that an indefinite one. Under Individuation, Hopper and Thompson list properties such as proper – common; human, animate – inanimate; concrete – abstract; singular – plural; count – mass; referential, definite – non-referential. Within the Transitivity Hypothesis, an action can be more effectively carried over to an individuated object than to a non-individuated one. Within this framework, a definite O is considered more completely affected than an indefinite one (H&T, 1980: 252-253).

Based on evidence from various languages, Hopper and Thompson propose the Transitivity Hypothesis in the following terms:

Transitivity Hypothesis

If two clauses (a) and (b) in a language differ in that (a) is higher in Transitivity according to any of the features 1A-J, then, if a concomitant grammatical or semantic difference appears elsewhere in the clause, that difference will also show (a) to be higher in Transitivity. (H&T, 1980: 255)

In essence, the Transitivity Hypothesis predicts that telic verbs take objects high in transitivity (e.g. referential, definite, animate, highly individuated), and atelic ones take objects low in these features. Where a language marks this variation morphologically, it can be described schematically as follows:

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[9] In their discussion Hopper and Thompson do only refer to active sentences. Unfortunately they do not state how passive constructions should be viewed under the transitivity Hypothesis. In passive constructions there is one obligatory argument, the early direct object and the transfer of the activity can have taken place as in *The child was taken to the kindergarten.* However, this issue remains to be solved and is not discussed in this thesis.

A $V_{[telic]}$ $O_{[high\ in\ transitivity]}$
A $V_{[atelic]}$ $O_{[low\ in\ transitivity]}$

Hopper and Thompson emphasise that it is not compulsory for a language to specifically mark an O that is either low or high in transitivity. Instead, they claim that where a language marks this distinction, the features of high or low transitivity on O will correspond to the transitivity of the verb. To exemplify this, according to the hypothesis, a perfective verb is more likely to take a direct object which is morpho-syntactically specified as definite (H&T, 1980: 279). Further, the Hypothesis also predicts that 'the opposite type of correlation will not be found, where a high transitivity feature systematically co-varies with a low-transitivity feature' (H&T, 1980: 255). This means that there will be no languages where a telic verb systematically takes an object low in transitivity, or an atelic verb necessarily has an object high in transitivity. Neither will there be cases where an imperfective verb systematically takes a direct object specified as definite, nor instances where a perfective verb correlates with an object which has necessarily the feature 'indefinite' (H&T, 1980: 266-257, 279).

The Transitivity Hypothesis predicts that some languages will mark As just when they are truly As and similarly, Os get marked when they are truly Os. Hopper and Thompson claim that languages especially mark definite Os and As and that it is exactly definite Os and A's that are the most prototypical ones and that they possess features signaling high transitivity. They take the normal, that is, the prototypical O to be definite on the basis of counts for foregrounded vs. backgrounded material and conclude that definite/animate Os are more natural than indefinite/inanimate ones. They also claim that true Os, those marked as definite and/or animate, mark the higher transitivity of the whole clause. Indefinite subjects and objects indicate reduced transitivity and they also carry a specific marker for this (H&T, 1980: 290 –291).

Thus Hopper and Thompson differ from Comrie (1977) who claims that features on definite Os are 'merely devices for distinguishing Os from As'. Comrie takes the A of a sentence typically to be animate and definite, and Os typically to be indefinite and inanimate on the basis of statistical counts in texts. Regarding subject marking, Comrie states that languages mark subjects when they are inanimate and/or indefinite, since this is the atypical situation for them. Comrie's claim has not only been questioned by Hopper and Thompson (1980) but also by Moravcsik (1978) who shows that several languages do not distinguish very clearly between As and Os at sentence level.

Hopper and Thompson also discuss Finnish and Estonian with regard to transitivity. As explained above, transitivity affects morphosyntactic marking (H&T, 1980: 262-263). In Finnish and Estonian, according to Hopper and Thompson, there are various object cases indicating this variation. Partitive case on Os typically signals low transitivity. High transitivity on Os is linked to accusative case in Finnish and to genitive and nominative case in Estonian.[10] This case alternation expresses features of transitivity such as the aspect of the clause or the definiteness of the O. The accusative marks definite objects in perfective and telic clauses, and the partitive signals the indefiniteness of the object phrase, and also imperfectivity and atelicity.

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[10] This judgement is based on the actual morphological form of the object markers which is syncretic with genitive and nominative, and ignores their syntactic distribution. In our paper, however, exactly due to the behaviour of object marking in various syntactic environments, we refer to this case as accusative.

For the Estonian object cases, Hopper and Thompson adopt Oinas' (1966:224) analysis. Following Oinas, the objects are assumed to be marked by three grammatical cases: the nominative marks objects when no overt A is present; the genitive covers most of the usual functions of an accusative; and the partitive is the third possible object case. The partitive is used for partial, i.e. unbounded Os, but it also signals the imperfectivity of the activity. Following this reasoning, less active verbs, e.g. verbs of perception are likely to take partitive Os in Estonian. Besides this, Hopper and Thompson mention partitive as the only possible object case under negation and in the construction 'verbum sentendi'. They explain it by stating that the O of a clause which is imperfective, negated, inactive, or irrealis is somehow less of an O than in the perfective, affirmative (etc.) clause; and it is marked as such in the morphosyntax (H&T, 1980: 264-265, 269-270, 277).

Following Hopper and Thompson, for our analysis we take transitivity to be a semantico-syntactic concept at sentence level. Such a choice is motivated by the fact that purely syntactic indications of transitivity, e.g. the missing object NP in intransitive sentences, are not capable of capturing the different levels of transitivity of clauses (c.f. Nemvalts 1996, Kittilä 2002) and besides syntactic indicators, we need morphological ones. Following the Transitivity Hypothesis, we take a typical subject to be definite. In the same vein, a typical object is considered to be definite i.e. the object of a telic action and totally affected. This contradicts the views of various other researchers (e.g. Givón 1979, Comrie 1977) who take a prototypical object to be indefinite. Taking this as the underlying theoretical assumption, we will now tackle the case variation in Estonian grammatical relations.

4   Explaining Case Variation

4.1   Subject Marking

As mentioned in the Introduction, the only possible case for subjects in transitive clauses is nominative. In intransitive and existential clauses, however, both nominative and partitive occur. This raises the question as to how this case marking pattern maps onto the Transitivity Hypothesis. To answer this, it is necessary to weigh each sentence type and its arguments against the parameters of transitivity. We start with a typical transitive sentence, and then move on to intransitive and existential constructions.

4.1.1   Basic Transitive Constructions

The transitive sentence to be tested, in (15) has its subject (in bold) in the nominative and its object (in Italics) in the accusative case:

(15)   **Poiss**   luges   *raamatu*   läbi.   [T1]
        boy.NOM   read.PAST.3.SG   book.ACC   through
        'The boy read the book through.'

The construction in (15) has two participants – *the boy* and *the book*. The sentence expresses an activity, and the aspect of the sentence is telic since there is a defined endpoint. The sentence is punctual since there is a clearly manifested starting point and endpoint of the activity. The subject noun phrase denotes a human being and it is most likely he acts volitionally.

The sentence is affirmative and in realis. The agent is high in agency, it denotes an animate referent. The object of the sentence is fully affected, and the O is individuated – although it is an inanimate noun, it is specific, in that the speaker refers to a particular book. All these parameters indicate high transitivity. To conclude, sentence (15) is characterised by a high level of transitivity. If one inserts a noun phrase indicating low transitivity into this sentence, for example a partitive NP in this construction (see the previous Section, 2.1.2 for the proposed difference in transitivity between partitive and accusative arguments), it becomes ungrammatical, as shown in example (16):

(16) ***Poissi**luges   **raamatu**   läbi.
      boy.PART   read.PAST.3.SG   book.ACC   through

In (16) we have changed the case marking of the subject to the partitive, which indicates low transitivity. As the result shows, the noun phrase marked with a low transitivity case is incompatible with the sentence which is marked with high transitivity by the perfective adverbial *läbi* 'through' and accusative case on the object. This result is in line with the Transitivity Hypothesis which states that low transitivity arguments do not co-occur with verbs denoting perfective events. Hence, the conclusion we can make at this stage is that subjects in highly transitive clauses can only be marked with the nominative case in Estonian.

4.1.2   Intransitive Sentences
Let us now proceed to intransitive sentences where, as the term indicates, the transitivity is reduced. Syntactically this reduced transitivity is indicated by the missing object noun phrase, as in (17):

(17) **Laps**   haigutas.   [IT.1]
      child.NOM   yawn.PAST.3.SG
      'The child yawned.'

When weighed against the transitivity parameters, the results are as follows: the number of participants is one, indicating low transitivity. The sentence expresses an activity. The aspect of the sentence in (17) is atelic and the activity not punctual which indicates low transitivity again. The subject does not act volitionally which reduces the transitivity of the clause. The sentence is affirmative with an animate subject noun phrase, and the activity is performed in realis. All of these parameters, on the other hand, indicate high transitivity. The parameters connected to Os are not applicable since there is no O present. The above intransitive construction therefore has mixed properties with regard to transitivity. When (17) is compared to (15), the latter is ranked higher on the scale of transitivity due to the existence of the object and its properties, despite the fact that the animacy of the subject noun phrase is ranked higher in (17). If one replaces the nominative subject with a partitive one in this construction, the result becomes ungrammatical, as in (18):

(18) ***Last**   haigutas.   [IT.1]
      child.PART   yawn.PAST.3.SG

Example (18) demonstrates that a partitive subject is not compatible with this sentence even though the sentence is intransitive. The prediction that can be made here is that a singular NP that is high in agency is not compatible with a case indicating low transitivity.

Despite the discrepancies in the value 'Transitivity' between the subjects in (15) and (17), we notice that the subject in both transitive and intransitive clauses is marked with nominative case. Based on the data given in this section, it would be justified to state that Estonian is a prototypical nominative-accusative language in that it marks both transitive and intransitive subjects with the same case regardless of transitivity.

4.1.3 Existential Sentences

In existential constructions the case of the subject is either nominative or partitive, as (19) and (20) illustrate:

(19) **Lilled**   kasvavad   siin.   [Ex.1.]
      flower.PL.NOM   grow.3PL   here
      '**The flowers** grow here.'

(20) Siin   kasvab   **lilli**.   [Ex.2.]
      here   grow.3SG   flower.PL.PART
      'There are **some flowers** growing here.'

When weighing these two sentences against the parameters of transitivity we obtain the following results: there is only one participant, and the sentence does not express an action. The aspect of the sentence is atelic because, the endpoint of the activity is not specified. Moreover, the activity expressed by the verb is not punctual. All these parameters indicate low transitivity. The agent does not act volitionally and is low in agency, due to its inanimacy and given the meaning of the verb. Both constructions are in the affirmative and in realis, indicating high transitivity. No O is present in the sentence, which also signals low transitivity. The overall conclusion is thus that both (19) and (20) are low on transitivity. Therefore one would expect to have a non-nominative subject in these constructions. This is one of the possibilities as was illustrated in (20).

The difference between (19) and (20) is that in (19) the nominative subject NP is limited, since there is a defined set of referents that are denoted by it. The sentences in (19) can be used for example when showing someone around one's garden. The partitive subject NP in (20) on the other hand is unlimited and refers to an unspecified, unlimited referent. In using (20) the speaker means that the flowers are growing randomly somewhere.

The values of the parameters of transitivity of (19) are identical to those of example (20), although the case of the subject in the latter construction is different. Here Hopper and Thompson's Transitivity Hypothesis has encountered a problem – it seems not to be capable of accounting for the case variation which occurs on low animacy subjects. Contrary to what the transitivity Hypothesis predicts, in one instance, in example (20) the subject is marked with a case that usually marks prototypical objects. The variables connected to the subject are (A) number of Participants, (E) Volitionality, and (H) Agency. In both of the examples (19) and (20) these components are equal: there is one participant which is low in agency and does

not act volitionally. However note that this difference in the features on the subject has had consequences for the word order. There have been views that the Estonian word order is pragmatically motivated (e.g. Huomo1996) and that entities with lesser pragmatic relevance move towards the right end of the sentence. Although word order facts are interesting for Estonian, due to the limitations of the present paper, they will not be addressed any further.

In examples (16) and (18) it was illustrated that an argument carrying some properties usually associated with high agency but marked with the partitive case was not compatible with either a transitive or intransitive verb. The reverse situation, represented by (19), however, was grammatical – the argument with low agency but carrying the nominative case was compatible with an intransitive verb. How can this difference in distribution be captured? The prediction here is that Agency could be the determining factor in distributing the case marking. Arguments high in Agency are not compatible with the case indicating low transitivity. On the other hand, arguments low in Agency can take a case marking high transitivity. Nevertheless, this does not explain the acceptability of both nominative and partitive case on a low agency subject in existential sentences.

In order to account for this case variation, a more fine-grained analysis of the subject noun phrase is needed. Below we investigate the properties of both noun phrases in existential sentences more thoroughly. First, we shall test whether the number of the argument influences the case marking, since this is the first pair of plural subject NPs considered in this section. The singular sentences corresponding to (19) and (20) are given in (21) and (22) respectively:

(21) **Lill**   kasvab   siin.   [Ex.1]
flower.NOM   grow.3PL   here
'**The flower** grows here'

(22) ***Lille**   kasvab   siin.   [Ex.2]
flower.PART   grow.3SG   here

Example (22) indicates that the partitive is not compatible with a singular subject phrase, although the subject is low in agency and the sentence atelic. Example (21) illustrates that nominative, instead is grammatical in the singular.

This evidence allows us to assume that the parameters of transitivity connected to the A, the subject of a transitive clause, namely Participants, Volitionality and Agency as used in H&T (1980) are not sufficient to assign case to a subject in a non-transitive clause. Probably it is worth reminding the reader that Hopper and Thompson saw these three parameters to be connected to the subject of a transitive clause. According to H&T (1980), in highly transitive constructions all these three characteristics need to be on the high end of the scale for the construction to classify as highly transitive. That means the number of participants needs to be more than one, the Agent needs to be capable of volitional actions and ideally a singular animate referent.

Thus, the prediction that can be made based on the data is that in addition to the parameters listed, number is a determining factor in assigning the subject a case. Number as a variable was mentioned under the parameter Individuation of O. As the data indicated, this component is an influential factor even for subjects in non-

transitive clauses (S) in Estonian. To test this hypothesis, let us insert a plural subject, high in agency and in partitive case, into the intransitive construction (17). The prediction would be that the high transitivity feature – high animacy of the noun phrase - is not compatible with the features indicating low transitivity – partitive case, the plural number and an intransitive construction. Example (23) shows that the plural partitive subject is not ungrammatical, although it is somehow marginal in that some of my informants would prefer a nominative quantifier *palju* 'many' to precede 'children', whilst others would label this as unacceptable:

(23)   **?Lapsi**   haigutas.   [IT.1]
       child.PL.PART   yawn.PAST.3.SG
       'Some children were yawning.'

To see whether plural partitive subjects are compatible with high transitivity, we insert the same NP in the plural in example (15). The prediction here would be that the partitive as an indicator for low transitivity is not compatible with singular and high animacy and agency since these features lie at the opposite ends of the transitivity scale. As example (24) illustrates, a plural partitive subject is not compatible with a highly individuated object noun phrase:

(24)   ***Poisse**   luges   **raamatu**   läbi   [T.2]
       boy.PL.PART   read.PAST.3.SG   book.ACC   through
       'Some boys read the book through.'

Example (24) would be grammatical, although marginal if the object noun phrase were also in the plural, as shown in (25):

(25)   **?Poisse**   luges   **raamatuid**   läbi.   [T.2]
       boy.PART   read.PAST.3.SG   book.PL.PART through
       'Some boys were reading some books through.'

The results are as predicted – partitive case is not compatible with singular number regardless of the agency of the subject phrase. What examples (15) to (25) indicate is that number is indeed a determining factor in allowing subjects with low transitivity case marking in non-transitive sentences. It was shown that the singular number is not compatible with partitive case on subjects either high or low in agency, as in (18) and (22) respectively. Plural, on the other hand, allows partitive subjects if they are low in agency, as in (20) and even when they are high in agency, as in (23). This evidence suggests that partitive case is compatible with plural subjects. It also suggests that partitive case and singular subject do not lie at the same end on the transitivity scale.The results of this section are summarised in Table 2 below.
The singular number, a feature of high transitivity, is more effective in deciding the case of the subject phrase than animacy, in that both high and low animacy noun phrases get marked with nominative case.[11] The case variation occurs with plural noun phrases, where the partitive is possible even with high animacy subjects. The conclusion to be reached here is that number influences case assignment in the subject position in non-transitive sentences in Estonian. A similar phenomenon regarding

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[11] Number as a component of transitivity was mentioned under Individuation of O. Singular was considered more transitive than plural.

objects is easily accounted for within the Transitivity Hypothesis, which predicts that a singular object noun phrase is more likely to be marked with the case indicating higher transitivity than a plural object noun phrase (H&T, 1980: 279). As the data in this section have shown, this claim can also be extended to Estonian subjects.

Table 2. Features on subject noun phrases

CONSTRUCTION	CASE	ANIMACY OF THE SUBJECT	NUMBER	GRAMMATICAL?
T.1 (8.15)	NOM	High	SG	Yes
T.2 (8.16)	PART	High	SG	No
T.2 (8.24)	PART	High	PL	No
IT (8.17)	NOM	High	SG	Yes
IT (8.18)	PART	High	SG	No
IT (8.23)	PART	High	PL	yes?
Ex.1 (8.19)	NOM	Low	PL	Yes
Ex.2 (8.20)	PART	Low	PL	Yes
Ex.1 (8.21)	NOM	Low	SG	Yes
Ex.2 (8.22)	PART	Low	SG	No

The discussion has so far established that in addition to the parameters of transitivity listed in section 8.2, also number acts as one of the parameters defining the level of transitivity of the subject. Hence it should be included in the revised list under a cover term – Individuation of S/A, where S stands for a subject in a non-transitive clause and A for a subject in a transitive clause. This parameter also accounts for the fact that low agency subjects in existential constructions can take variable case marking depending on their individuation. This was illustrated in (19) and (20), repeated here as (26) and (27):

(26) **Lilled**   kasvavad   siin.   [Ex.1]
      flower.PL.NOM   grow.3PL   here
      ' **The flowers** grow here./That's the flowers that grow here'

(27) **Lilli**   kasvab   siin.   [Ex.2]
      flower.PL.PART   grow.3SG   here
      '**Some flowers** grow here.'

In (26) and (27) the nominals both have a similar feature: -animate. However, in (26) the subject is more individuated in that it is [+definite] and [+limited]. The partitive subject in (27), on the other hand, is [–definite] and [–limited]. It follows that all the other parameters of the Transitivity Hypothesis being equal, the features [±

definite] and [± limited], subsumed under individuation, are the determining factors for case assignment. An argument that is highly individuated and therefore specified for [+definite] and [+limited], gets marked by the nominative case, and an argument that is less individuated and specified for [–definite] and /or [–limited], gets marked by the partitive case. The results again are given in the tabular format below:

Table 3. Features on subjects in existential constructions.

NUMBER	ANIMACY	INDIVIDUATION	CASE
Plural	Low	Low	PART
Plural	Low	High	NOM

These results confirm that individuation of S is a determining factor in case assignment. What the data clearly indicate is that in Estonian, this individuation is a property relevant to subjects as well. So the characteristic that needs to be included in the list of parameters of transitivity, is individuation of S/A. With this, we take case variation in subject position to have been accounted for and now proceed to object case marking.

4.2   Object Marking

The section on the case marking of subjects indicated that H&T's Transitivity Hypothesis is able to account for the case variation in subject position given that it makes a more subtle distinction on S/A. This section investigates how the object marking pattern can be explained within the same framework. According to Hopper and Thompson (1980), a prototypical object is definite, the object of a telic action and totally affected. Hopper and Thompson, following Oinas' (1966), claim that in Estonian, objects carry one of three grammatical cases: nominative, when no A is present; genitive, which fills most of the functions of the accusative in other languages, and partitive.

What determines the case marking on object noun phrases in different syntactic environments? In Finnish, a closely related language to Estonian, a descriptive generalisation is that nominative objects occur in environments that are missing an overt subject and/or agreement morphology on the verb (e.g. Timberlake 1975, Vainikka 1989, Reime 1993, Maling 1993, Nelson 1998a,b). If the agreement features and the case competitor are missing, the object appears in an atypical object case, namely nominative.[12] Maling (1993) formulates the dependency between case marking and grammatical relations in terms of the Case Tier. The Case-Tier Hypothesis predicts that the nominative and the accusative form a tier that is mapped onto noun phrases in a sentence one-to-one from left-to-right (Maling 1993:60). Regarding the grammatical relations, the subject has the highest position that is followed by the object and adverbial. Therefore, the subject is assigned nominative case and the object the accusative. The situation where elements other than the subject are marked with nominative case arises when there is no grammatical subject present, or the subject is assigned case lexically by the verb. Despite differences in explaining

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[12] Nelson (1998b:161) defines the term 'case competitor' as an argument that is Caseless, i.e. nominative, and 'competes for Case with an argument that is being case marked'.

the case variation on objects, Maling's proposal does not differ form the ones above in that the existence of nominative objects is motivated by a lack of a grammatical subject in a sentence.

For Estonian, Timberlake (1975) has claimed that the same factors, i.e. a missing grammatical subject and a lack of agreement morphology on the verb, or the 'impersonal category of the verb' as he puts it, explain the occurrence of nominative objects. The absence of an A is also mentioned in Hopper and Thompson (1980) as a cause for nominative objects. Based on the accounts given above, the occurrence of a non-objective case on objects seems to be conditioned by similar factors in both Finnish and Estonian.

Regarding the semantic features of the clause and its arguments, Ackerman & Moore (1999) have proposed that in Estonian the accusative-partitive case alternation in affirmative clauses containing personal verbs corresponds to telicity, so that accusative objects occur in telic constructions and partitive objects in atelic ones. At the same time, they state that their claim is in line with Hopper and Thompson's proposal that telicity contributes to the transitivity of the clause. However, Ackerman & Moore do not state whether this claim can be extended to constructions with a missing subject as well. This section investigates whether the suggestions put forward by Hopper & Thompson and Ackerman & Moore are valid.

In order to do this, we need to examine different types of constructions: 1) basic transitives, and 2) imperatives.

4.2.1 Transitive Constructions

Objects in Estonia basic transitive clauses (in Italics) can be marked with either the partitive (28) or the accusative (29):

(28) Poiss   luges   *raamatut.*   [T.1]
      boy.NOM   read.PAST.3.SG   book.PART
      'The boy was reading a book.'

(29) Poiss   luges   *raamatu*   läbi.   [T.2]
      boy.NOM   read.PAST.3.SG   book.ACC   through
      'The boy read the book through.'

The traditional approach and Ackerman & Moore (1999) claim that the choice between partitive and non-partitive on objects in transitive clauses depends on the telicity of the clause. Furthermore, there have been claims that the object case is also sensitive to the limitedness of the object NP (discussed in Section 2.1.2). The partitive is said to correlate with atelic clauses and with unlimited/unbounded object noun phrases. The accusative, on the other hand, co-occurs with telic verbs and limited/bounded objects.

When the applicable parameters of transitivity (Participants, Kinesis, Aspect, Punctuality, Affirmation, Mode, Affectedness of O, and Individuation of O) are weighed against the data, the results are as follows:
In (28) and (29) there are two participants in the clause and the verb expresses an activity. The aspect of the sentence is atelic and it is not punctual. The subject acts volitionally and the sentence is affirmative and in realis. The only difference lies in the properties of O. In example (28) the O is not totally affected by the action and it is not highly individuated (it is an inanimate noun). In (29), on the other hand, the O is

totally affected having been read through and therefore, the O in example (29) is more individuated than in the previous sentence. At the same time, in example (28) the object gets an indefinite and possibly a specific reading. It is not clear whether both the speaker and hearer are familiar with the book that is being read. On the other hand, in example (29) the referent of O is a definite entity that both the speaker and hearer are able to identify.

The conclusion that can be drawn on the basis of these values is that (29) ranks higher on the scale of transitivity than (28). The data in our study support the traditional claims about the distribution of partitive and accusative case in the object position; partitive co-occurs with atelic verbs and with indefinite object NPs, and accusative with telic verbs and highly individuated objects.

Since the prototypical objects within the current framework are characterised as definite, objects of a telic action and as totally affected, the accusative NP qualifies as a prototypical object. Hence, partitive objects deviate from this and therefore mark the indefiniteness of the object NP.

To test this result, we insert the partitive object into the telic construction:

(30) **Poiss**   luges   *raamatut*   läbi.   [T.2]
       boy.NOM   read.PAST.3.SG   book.PART   through
       'The boy was reading the book through.'

The result is grammatical but not telic any more. The partitive argument has given the sentence a progressive reading and the object noun phrase is interpreted as specific in that it refers to a particular, identifiable entity, and hence the object is interpreted as limited. What example (30) shows is that the partitive argument is incompatible with a telic interpretation. Moreover, the example illustrates that the different case marking on object phrases indicates telicity or the aspect of the clause, rather than the definiteness of the object NP. However, an object carrying a case associated with high transitivity is ungrammatical in an atelic sentence, as in (31):

(31) ***Poiss**   luges   *raamatu*.   [T.1]
       boy.NOM   read.PAST.3.SG   book.ACC

Examples (30) and (31) confirm the claim made by the Transitivity Hypothesis that atelic verbs typically are paired with objects low in transitivity. On the other hand, (30) demonstrated that an object low in transitivity can co-occur with a telic verb. However, the result of such a combination is the reduced level of transitivity of the clause.

The data analysed in this section could be taken as evidence that partitive case marks reduced transitivity in both subject and object relations in Estonian. More specifically, the data indicate that telicity seems to have more defining power than boundedness or definiteness of the noun phrase in defining the object marking.

4.2.2 Imperatives

Imperatives are constructions which usually occur without an overt subject. Hopper & Thompson (1980: 264) who draw on Oinas (1966: 224), state that the object in these constructions is marked with nominative case because there is no A present. However, Nelson (1998a: 96) shows that for Finnish the existence of a subject is not a determining criterion for object case marking since it is possible to

have both a nominative object and a nominative subject in an imperative construction in that language. In order to see whether the presence of a subject influences object marking in Estonian, we need to investigate the data. While it is true that imperatives are typically missing a grammatical subject, as in (32), the subject may be present for emphasis in either preverbal position, as in (33) or postverbal position, as in (34):

(32) Söö   **võileib**   ära![13]   [IMP]
      eat.2.SG.IMP   sandwich.NOM   up
      'Eat the sandwich up!'

(33) Sa   söö   **võileib**   ära!   [IMP]
      2.SG.NOM   eat.2.SG.IMP   sandwich.NOM   up
      'YOU eat the sandwich up!'

(34) Söö   sa   **võileib**   ära!   [IMP]
      eat.2.SG.IMP   2.SG.NOM   sandwich.NOM   up
      'YOU eat the sandwich up!'

As the data illustrate, the proposed connection between the nominative case on objects and the missing grammatical subject may not be correct. Another argument which undermines Hopper and Thompson's claim is the fact that the partitive is also grammatical on objects in imperative constructions, as shown in (35):

(35) Söö   **võileiba**!   [IMP]
      eat.2.SG.IMP   sandwich.PART
       'Eat some sandwich!/ i.e. Do some sandwich eating!'

(36) Sa   söö   **võileiba**!   [IMP]
      2.SG.NOM   eat.2.SG.IMP   sandwich.PART
      'YOU eat some sandwich!'

(37) Söö   sa   **võileiba**!   [IMP]
      eat.2.SG.IMP   2.SG.NOM   sandwich.PART
      'YOU eat some sandwich!'

If the presence of the subject does not have any impact on the case of the object, the question that arises is what determines the case of the object in imperative constructions. In order to find an answer, it is necessary to compare the transitivity of each set of sentences.

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[13] The Estonian imperative verb is marked for person. In the example which follows, the 2PL form is given. This can be used either for a 2PL referent or for a 2SG referent where a polite request is being made:
(a) Sööge   **võileib**   ära!
    eat.2.PL.IMP   sandwich.NOM   up
    'You (PL) eat the sandwich up!'

The only difference between these two sets of sentences, namely (32) to (34), and (35) to (37) is that the former set gets a telic reading, whereas the latter one is understood as atelic. In addition, the nominative on the object indicates a bounded, i.e. specific referent. In contrast, the partitive object refers to an unbounded, i.e. unspecific one. Again, we see that the partitive – non-partitive case alternation on the object can be explained in terms of transitivity in that the partitive indicates the reduced level of transitivity of a clause. However, this does not explain why the definite object is marked with a true nominative case.

The same problem in Finnish syntax has been addressed by several linguists. Timberlake (1975) explains this phenomenon functionally and generative analyses of double nominative arguments have been given amongst others by Milsark (1985), Vainikka (1989) and Nelson (1998a). Since this paper takes a typological approach to case marking, Timberlake's functional explanation can most easily be incorporated into it.

According to Timberlake (1975), the presence of two nominative arguments in a construction with a 'personal' verb (i.e. verb which allows a grammatical subject) would create a conflict in reading and the accusative on the object avoids such a conflict. For Timberlake, the nominative case (also an 'elsewhere', or default case in general) on objects is connected to 'non-personal' verbs. He argues that 'non-personal' verbs do not take grammatical subjects so there is no conflict in assigning an argument its grammatical function. Nominative objects in imperatives and impersonal passives, according to him, are licensed by the lack of agreement morphology on the verb which in turn results in a lack of grammatical subjects. In addition, a recent descriptive generalisation with a theoretical point of view of Finnish nominative objects by Nelson (1998a: 71) comes to the same conclusion – nominative objects (or 'zero-accusatives' for her) co-occur with the missing subject and lack of agreement morphology on the verb.

As the Estonian data indicate, the imperative verb is marked for person, suggesting it is a 'personal' verb with agreement morphology. Moreover, it can also take a grammatical subject. These facts indicate that the two accounts above cannot be extended to Estonian imperatives. Hence neither the Transitivity Hypothesis, nor the accounts proposed by Timberlake (1975) and Nelson (1998a, b) were able to explain the occurrence of nominative objects in Estonian imperatives. Instead, we hypothesise that a fine-grained compositional analysis of finiteness of the verb may provide an answer. If finiteness is taken as a scalar property (as are many other phenomena in linguistics), then verbs that possess the maximum number of components of finiteness take accusative objects. At a certain point on the scale there is a cut-off where verbs combine with accusative objects and start to mark their object with the nominative. Yet, these preliminary ideas remain to be tested out on empirical data and any hasty conclusions at this stage could be misleading.

5 Conclusion

The present paper set off to investigate case marking in subject and object positions in Estonian and the applicability of Hopper & Thompson's (1980) Transitivity Hypothesis on this pattern. The original hypothesis by Hopper & Thompson claimed that Individuation was a relevant property for the object relation. This paper, however, has illustrated it is a factor affecting subject marking in Estonian. For a complete picture of case marking patterns in grammatical relations in

transitive, intransitive, imperative and existential constructions, we summarise the facts below.

5.1 Subjects

The traditional grammars, such as Erelt et.al. (1993, 2000), and various linguists, like Nemvalts (1996) state that the case of a prototypical subject is nominative and that a prototypical subject is definite. They also state that in existential constructions nominative subjects may alternate with partitive ones. These claims were supported by the data presented in this paper and explained by Hopper & Thompson's Transitivity Hypothesis. The nominative-partitive alternation correlates with the transitivity of the clause if transitivity is seen as a sentence level property. Nominative subjects are perceived as definite and they occur in highly transitive clauses. In intransitives and existentials, nominative subjects indicate highly individuated referents, and thus define the construction as being on the higher end of the scale of transitivity than corresponding constructions with a partitive argument. Partitive subjects, on the other hand, indicate reduced transitivity, and typically the unboundedness and/or indefiniteness of the subject NP. As became evident from the discussion, partitive subjects do not occur in traditional transitive constructions but only in sentences which can be described as lower on transitivity. This means such sentences express a non-perfective activity and the subject noun phrase does not have a highly defined referent, i.e. it is low on Individuation. Expanding this idea further, we could say that such subjects are in the plural, indefinite and unbounded.

5.2 Objects

Traditionally, the object cases in Estonian have been considered to be the genitive, the partitive and the nominative. The partitive – non-partitive alternation is said to reflect two kinds of properties: Firstly, the telicity of the clause, and secondly, the definiteness/boundedness of the object noun phrase. Nominative objects are considered to occur in imperative.

In our discussion we follow Ackerman Moore (1999) and consider non-partitive objects in transitive constructions to carry accusative marking. We found that acusative case on objects reflects either the telicity of the clause or the boundedness of the object NP or both. The partitive, on the other hand, reflects either the atelicity of the clause or the unboundedness of the object NP or both. This pattern has also been attested for Finnish in Kiparsky (1998). The factor that unifies telicity, boundedness and definiteness is transitivity in Hopper and Thompson's sense.

Therefore, we can claim that accusative case marks objects in highly transitive constructions. The partitive on objects, on the other hand, indicates reduced transitivity of the clause both in terms of the telicity of the clause and the boundedness/definiteness of the object NP. Partitive objects occur in atelic constructions or if they stand in telic constructions, they are unbounded and/or indefinite noun phrases. It is also interesting to note that, based on the current data, partitive case primarily seems to indicate the atelicity of the clause and secondarily the indefiniteness of the object noun phrase.

In imperative constructions, however, transitivity of the clause was not helpful in explaining the partitive – non-partitive alternation on objects. As the data indicate, the nominative case marking on the object position is not dependent on the subject being absent or on a lack of agreement morphology. Instead, an independent factor seems to condition it which does not fall under transitivity. Given that both the subject

and object have identical case marking (either nominative or partitive), salience seems to be the factor determining the distribution of grammatical relations between the two noun phrases. Entities that are more salient tend to acquire topicality properties and occur earlier in a clause than those that are less salient. Subjects are more salient than objects and therefore the noun phrase that comes first in the clause gets to fulfil this function, as shown in (38).[14],[15]

(38)   Vii   sa   laps   lasteaeda!   [IMP]
       take.IMP   2.SG.NOM   child.NOM   kindergarden.ILL
       'You take the child to the kindergarten!'

To summarise the above, the partitive/accusative alternation in transitive sentences and the partitive/nominative variation in imperatives correspond to the predictions made by the Transitivity Hypothesis – objects high in transitivity are marked as such, either with accusative or nominative case depending on the construction type. The hypothesis also claims that objects that are low in transitivity are specifically indicated and as the data illustrate, they are marked with partitive case. These findings confirm claims made by Ackerman & Moore (1999) regarding object marking in transitive sentences.

The generalisation that can be made on the basis of the case marking patterns that were presented in this paper, is that the partitive case in Estonian marks a deviation from the highest level of transitivity. It is the case for subjects occurring in constructions that are low in transitivity. In addition, the partitive also marks indefinite objects in transitive constructions and in imperatives. As it maps with the atelicity of the clause, it is therefore justified to call partitive case a marker of reduced transitivity in Estonian. The paper illustrated that the Estonian case marking patterns are best captured with the view of transitivity as a sentence level property which applies Individuation to both subject and object relations. The principal aim of the study was to establish whether case marking is a transparent indicator of subjects and objects. In what we have seen, it is the transitivity of the clause, and not grammatical relations that case marking reflects.

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[14] It is interesting to note that it is also possible to get two partitive arguments in the same sentence, as in (a). The subject and the object relations are again distributed left-to-right.
(a1) Õues   ajas   poisse   tüdrukuid   taga.
     outside.INE   chase.PAST.3.SG   boy.PL.PART   girl.PL.PART   after
     'Outside some boys were chasing after girls.'
[15] Pragmatic prominence, or salience has also been mentioned in Huomo (1996) as a factor defining the word order in a clause in Estonian. Although this aspect deserves further attention, given the scope of the paper, it will not be dwelled upon here.

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