

Aspect and Partitive Objects in Finnish

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1. Introduction

In languages displaying overt case morphology, case-assignment on direct objects has been shown to correlate with the interpretation of the Noun Phrase. Enç (1991) notes, for instance, that in Turkish the direct object may appear with or without an overt accusative case as shown below, but the interpretations obtained in the two instances are different. In (1), the object carries overt accusative case and the sentence refers to a specific book, whereas the caseless object in (2) indicates a nonspecific book.

- (1) Ali bir kitabı aldı
Ali one book-Acc bought
'A book is such that Ali bought it.'
- (2) Ali bir kitap aldı
Ali one book bought
'Ali bought some book or other.'

Similar data have been discussed by Mahajan (1990) for Hindi, Butt (1995) for Urdu and Karimi (1996) for Persian. Based on such examples, de Hoop (1992) distinguishes two types of case (strong vs. weak) which correspond to the semantic interpretation obtained on the object NP. Thus, an accusative (strong) case in Turkish would give rise to a 'strong' (i.e., referential or generic) reading, and the lack of overt case morphology (weak case) would signal a 'weak' (i.e., existential) reading.

De Hoop tries to extend this analysis to the distinction in object case-marking in Finnish. At first sight, Finnish data seem to correlate with this hypothesis as illustrated in the examples below, where the 'weak' partitive case denotes an indefinite interpretation whereas the 'strong' accusative case gives rise to a definite reading.

- (3) Ostin leipää
I bought bread-**Part**
'I bought (some) bread.'

- (4) Ostin leivän
I bought bread-**Acc**
'I bought the bread.'

Similarly, Belletti (1998) treats the Finnish partitive as an inherent case, and she refers to the "intrinsic" incompatibility of the partitive with definites. But the Finnish case system presents a problem for the analyses suggested by de Hoop and Belletti, since it does not show a one-to-one correspondence between case morphology and the strength of the objects. The following example illustrates that a direct object carrying the 'weak' partitive case in Finnish can have a definite (i.e., strong) interpretation in an irresultative sentence.

- (5) ammu-i-n karhu-a
shoot-Past-1sg bear-**Part**
'I shot at the/a bear.'

I propose a syntactic analysis to capture the distribution of partitive case in Finnish. I show that the realization of partitive case correlates with the strength of the object NP as well as the aspectual interpretation of the predicate.

2. Aspect and Partitive Case

Kiparsky (1998) shows that there exists a correspondence between the boundedness of the predicate and the case assigned to the object. He proposes that, when the event is unbounded, the object appears with partitive case. Thus, in (6a), the object receives accusative case and the predicate is interpreted as bounded, as shown by its compatibility with the 'in an hour' adverbial. (6b), on the other hand, has a partitive object and is interpreted as an unbounded predicate.

- (6) a. Matti luk-i kirja-t (tunni-ssa)
Matti-Sg/Nom read-Pst/3sg book-Pl-**Acc** (hour-Iness)
'Matti read the books (in an hour).'
- b. Matti luk-i kirjo-j-a (tunni-n)
Matti-Sg/Nom read-Pst/3sg book-Pl-**Part** (hour-Acc)
'Matti read books (for an hour).'

Similarly, the direct object in (7a) has accusative case and the VP is bounded, whereas the partitive case on the object in (7b) gives rise to an unbounded reading. The object in this example can be interpreted either as

an indefinite as in (i) or as a definite object in the progressive reading in (ii).

- (7) a. Hän kirjoitt-i kirjeet *bounded*
 He/she write-Pst/m/3sg letters-**Acc**
 ‘He wrote the letters.’
- b. Hän kirjoitt-i kirje-i-tä *unbounded*
 He/she write-Pst/m/3sg letter-Pl-**Part**
 (i) ‘He wrote letters.’
 (ii) ‘He was writing (the) letters.’

Case-assignment in Finnish, however, does not depend on the strength or definiteness of the object as has been suggested in the literature, but correlates rather with what Kiparsky calls *quantitative determinacy*. This notion is equivalent to *quantization* of Krifka (1992) or *specific quantity of A (+SQA)* of Verkuyl (1993). It is used to refer to an object that represents a specific quantity or cardinality and is closely related to VP aspect: An event is bounded if the direct object refers to a specific quantity (i.e., is +SQA) as illustrated in the contrast in (8).

- (8) a. They ate cheese. *unbounded*
 b. They ate from the cheese. *unbounded*
 c. They ate sandwiches. *unbounded*
 d. They ate three sandwiches. *bounded*
 e. They ate a sandwich. *bounded*

So far, I have proposed, following Kiparsky (1998), that the distribution of accusative vs. partitive case on Finnish objects depends on boundedness, since the direct object of an unbounded Verb Phrase is obligatorily partitive. In addition, it was argued that objects representing a specific quantity give rise to bounded predicates. We would then expect not to have partitive case on a quantitatively determinate or +SQA object, but only on -SQA objects as illustrated in the example below. In (9a), partitive case appears on the +SQA object meaning *two bears* and the sentence is ungrammatical. The accusative case, however, is felicitous in (9b).¹

- (9) a. * saa-n kah-ta karhu-a
 get-1sg two-**Part** bear-Part
 b. saa-n kaksi karhu-a
 get-1sg two-**Acc** bear-Part
 ‘I’ll get (the) two bears.’

1. The relevant case in this example is the one appearing on the numeral.

irresultative². Consider the following example:

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|------|-------------------------|----------------------|---------------------------------|
| (15) | Ammui-n | karhu-j-a | |
| | I-shot | bear-Pl- Part | |
| | 1. I shot at the bears. | | <i>irresultative; unbounded</i> |
| | 2. I shot at bears. | | <i>irresultative; unbounded</i> |
| | 3. I shot bears. | | <i>resultative; unbounded</i> |

This sentence actually has three possible readings, each giving rise to an unbounded event. The sentence can be interpreted as an irresultative event which is best translated in English as ‘to shoot at’, denoting an activity. In this interpretation, the result is not known and usually implies that the shots missed. In the irresultative sentence, the object receives a partitive case regardless of its quantitative properties or definiteness, represented in the readings in 1 and 2. But the sentence can also be interpreted as a resultative event, with the meaning ‘shot’ (vs. the irresultative ‘shot at’) as shown in reading 3. Note that the sentence is still unbounded (e.g., ‘I shot bears for hours/*in an hour’). Contrast the readings in (15) to the one obtained in (16) below, where the accusative case has been assigned to the object. Here, the sentence is interpreted as a resultative and it is bounded.

- | | | | |
|------|---------------------|---------------------|-----------------------------|
| (16) | Ammui-n | karhu-t | |
| | I-shot | bear-Pl- Acc | |
| | ‘I shot the bears.’ | | <i>resultative; bounded</i> |

To sum up, it was argued, following Kiparsky, that partitive case and unbounded VP aspect correlate. In addition, the examples show that resultativity and boundedness do not always coincide. This can be seen in (13) where resultatives allow both bounded and unbounded VP aspect based on the object properties, and in the readings of examples (15) and (16), which show that irresultatives do not allow bounded events to form at the VP level (regardless of the properties of the object).

Table 1 shows how the verbal and object properties interact to contribute to the formation of VP aspect in Finnish. If the lexical verb is result-oriented, then it depends on the object properties (i.e., whether it represents a specific quantity) to determine the aspect at the VP level. Thus, a +SQA object will delimit the event giving rise to a bounded VP aspect, whereas a -SQA object will form an unbounded event. If the lexical verb is not result-oriented, however, the VP event is always unbounded, regardless

2. In this paper, I use the terms (*not*) *result-oriented* and (*ir*)*resultativity* interchangeably.

of the object properties. Case-marking on the object correlates with the boundedness of the predicate.

Table 1: Correlation between case and aspect in Finnish

	Verb	Object	VP Aspect	Object Case	example
1	+result	+SQA	+bounded	Accusative	<i>Matti luki kirjat</i> 'Matti read the books'
2	+result	-SQA	-bounded	Partitive	<i>Matti luki kirjoja</i> 'Matti read books'
3	-result	+SQA	-bounded	Partitive	<i>etsin karhuja</i> 'I am looking for the bears'
4	-result	-SQA	-bounded	Partitive	<i>etsin karhuja</i> 'I am looking for bears'

3. Aspect and Syntactic Structure

The correspondence shown in Table 1 is very similar to Kiparsky's results. These generalizations capture the correct distribution of partitive case, but they do not go far enough in explaining the close interaction that emerges between the quantitative properties of the object, the aspectual interpretation at the VP level, the intrinsic aspectual property of the verb, and the resulting case on the object. In this paper, I offer a syntactic analysis that captures the compositionality of VP aspect by taking into account the contributions from the lexical verb and the object NP properties. This approach derives the aspectual interpretation of the predicate and its interaction with case-marking at the syntactic level.

I assume the presence of the Aspect Phrase functional projection (AspP), which is responsible for delimiting the event when the direct object appears in its specifier position (Travis 1991, Borer 1994, Ritter and Rosen 1998). In Finnish, AspP is the functional projection that assigns accusative case. Thus, if the object appears in the specifier of AspP, the predicate is bounded and the object receives accusative case. I argue that the projection of AspP is determined by the aspectual properties of the lexical verb. Thus, certain verbs, such as *love*, *touch*, *kiss* and *seek* are intrinsically marked for irresultativity. These verbs can only form unbounded predicates and never allow the assignment of accusative case. In contrast, verbs like *kill* and *buy* are considered intrinsically result-oriented. I suggest that the aspectual information provided by the verb in Finnish consists of specifying whether Aspect Phrase is projected with or without a specifier in syntax. In the case of result-oriented verbs, AspP is selected by the lexical item and has to be

fully projected in the syntactic structure. Verbs that are not result-oriented do not license the projection of a full AspP and project an Aspect Phrase without the specifier position. In predicates containing verbs such as *shoot*, which may be interpreted either as a resultative or as an irresultative, AspP is not specified. Indeed, in this approach, the default case is for the AspP projection to be unspecified. Certain verbs, however, may constrain the aspectual possibilities of the predicate by licensing the full projection (e.g., *kill*) or disallowing the specifier position from projecting (e.g., *love*).

Case-assignment in Finnish can now be captured as follows: For accusative case to be assigned, the direct object has to be in the specifier of Aspect Phrase since I postulate that AspP is responsible for case-assignment in this language. In order for this to take place, the specifier of Aspect Phrase must be projected, but additionally, the object must be quantitatively determinate. If either of these factors is not met, the object receives the partitive case. These conditions are given in (17).

- (17) Accusative case iff
- AspP is fully projected
 - Object NP is quantitatively determinate
- Partitive case otherwise

Note that the projection of AspP and the quantitative values of the NP are determined by the semantic properties of the verb and the object NP, respectively.

First consider the result-oriented verb *buy* repeated in (18). In these sentences, case-marking distinguishes the quantitatively determinate and the quantitatively indeterminate objects, as well as the bounded and unbounded predicates.

- (18)a. Matti ost-i maito-a *unbounded*
 Matti-Sg/Nom buy-Pst/3sg milk-sg.**Part**
 ‘Matti bought milk.’
- b. Matti ost-i maido-n *bounded*
 Matti-Sg/Nom buy-Pst/3sg milk-sg.**Acc**
 ‘Matti bought the milk.’

As shown in Table 2, result-oriented verbs allow the full projection of AspP. In these cases, if the object represents a specific quantity as in the structure marked (1), the direct object can move to [spec, AspP], thus delimiting the event and forming a bounded predicate. The object is assigned accusative case in this position. If the object does not represent a specific quantity, however, it remains within the VP. The resulting structure is shown

in (2) with an unbounded event and partitive case on the object.

Table 2: A syntactic analysis for case-assignment in Finnish

	+ SQA object (Specific Quantity)	- SQA object (Not Specific Quantity)
verb result-oriented	<p style="text-align: right;">❶</p> <p style="text-align: center;">VP aspect = bounded ex. 18a</p>	<p style="text-align: right;">❷</p> <p style="text-align: center;">VP aspect = unbounded ex. 18b</p>
verb not result-oriented	<p style="text-align: right;">❸</p> <p style="text-align: center;">VP aspect = unbounded ex. 19a</p>	<p style="text-align: right;">❹</p> <p style="text-align: center;">VP aspect = unbounded ex. 19b</p>

If the verb is not result-oriented, as shown in the example in (19), the specifier of AspP is not projected. Thus, the accusative case cannot be assigned to the object regardless of its quantitative properties as illustrated in the configurations (3) and (4) in Table 2.

- (19)a. etsi-n karhu-j-a *unbounded*
 seek-1sg bear-Pl-**Part**
 'I'm looking for bears.'
- b. etsi-n karhu-j-a / *karhu-t

seek-1sg bear-Pl-**Part** / bear-Pl.**Acc**
 'I'm looking for the bears.'

If the verb is not specified for result, it may or may not project the specifier of Aspect Phrase in syntax. This gives rise to four possibilities as shown in the configurations in Table 3 and exemplified in (20).

Table 3: Verbs unspecified for result

	+ SQA object (Specific Quantity)	- SQA object (Not Specific Quantity)
verb result-oriented	<div style="text-align: center;"> </div> <p style="text-align: center;">VP aspect = bounded ex. 20a</p>	<div style="text-align: center;"> </div> <p style="text-align: center;">VP aspect = unbounded ex. 20b</p>
verb not result-oriented	<div style="text-align: center;"> </div> <p style="text-align: center;">VP aspect = unbounded ex. 20c</p>	<div style="text-align: center;"> </div> <p style="text-align: center;">VP aspect = unbounded ex. 20d</p>

- (20)a. Ammui-n karhu-t full AspP projected; resultative
 I-shot bear-Pl.**Acc** definite NP[+SQA]
 ‘I shot the bears.’ ➡ *Accusative case; Bounded predicate*
- b. Ammui-n karhu-j-a full AspP projected; resultative
 I-shot bear-Pl-**Part** indefinite NP[-SQA]
 ‘I shot bears.’ ➡ *Partitive case; Unbounded predicate*
- c. Ammui-n karhu-j-a partial AspP; irresultative
 I-shot bear-Pl-**Part** definite NP[+SQA]
 ‘I shot at the bears.’ ➡ *Partitive case; Unbounded predicate*
- d. Ammui-n karhu-j-a partial AspP; irresultative
 I-shot bear-Pl-**Part** indefinite NP[-SQA]
 ‘I shot at bears.’ ➡ *Partitive case; Unbounded predicate*

For a verb like *shoot*, the projection of AspP is not specified in the lexical entry of the verb thus it may or may not project the specifier position. In the configurations in (1) and (2) of Table 3, AspP is fully projected into syntax and case-assignment depends on the quantitative properties of the object. If the object expresses a specified quantity, it can move to the [spec, AspP] position, where it delimits the event resulting in a bounded predicate. AspP also assigns accusative case to the direct object (configuration 1). If the object lacks quantitative determinacy, however, it cannot move to AspP; it remains in VP and appears with partitive case (configuration 2). Note that since a full AspP is projected, the verb’s resultative reading (*shoot*) obtains in both structures as shown in the corresponding English translations. If AspP is not projected, as in (3) and (4), the quantitative properties of the object do not matter, since the object cannot move. The event is not delimited and the object appears with partitive case, regardless of its quantitative determinacy. Since full AspP is not projected, the verb has the irresultative reading *shoot at*.

4. Conclusion

In this paper, I have distinguished the two notions of result-orientedness and boundedness. These two aspectual properties are represented differently in the syntactic structure. Resultativity correlates with the projection of Aspect Phrase, whereas boundedness is determined by the presence of a quantitatively determinate object in the specifier of Aspect Phrase. If AspP is fully projected in syntax, a quantitatively determinate object moves to the specifier position of the projection, thus giving rise to a bounded

interpretation. If AspP is only partially projected and/or the object is quantitatively indeterminate, the specifier of the AspP can not be filled and the event is interpreted as unbounded. This analysis can give an account for the close relation of the direct object and the delimited interpretation of the event. In addition, an account is provided for the case-assignment in Finnish based on the combination of several independent factors: quantificational properties of the object, aspectual properties of the verbal entry, and their relation to syntactic structure.

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