

# If You Own It, It Exists; If You Love It, That Says Something about You, Not It: Semantically Conditioned Case in Finnish

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## 1. Introduction

In Finnish, the object of a transitive verb is case marked in one of two ways: with the ACCUSATIVE or PARTITIVE case. Generally speaking, all Finnish transitive verbs are compatible with both accusative and partitive marked objects. Basically, which case is assigned can affect the interpretation assigned to a verb or its object. This suggests an instance of free variation in Finnish; that there are no governing principles that determine when accusative versus partitive case is assigned. This is not so. Which case is assigned is thought to be a function of the lexical semantics of the verb, its object, and the way in which their meanings are composed. This type of case assignment is referred to as SEMANTICALLY CONDITIONED CASE (SCC) and will be the primary focus of this paper.

Evidently, SCC in Finnish carries with it a certain tension: On the one hand, case assignment *affects* the interpretation of a verb or its object; on the other, it is *determined by* the interpretation of a verb or its object. Fortunately, this tension can be resolved, at least in part, if we understand that many Finnish verbs have a sort of default case assignment behavior: Some Finnish verbs canonically assign accusative case, while others assign partitive.

To better understand this, let us take as a starting point that the class of Finnish transitive verbs can be split three-ways between AMBIVALENT VERBS, ACCUSATIVE ASSIGNERS, and PARTITIVE ASSIGNERS. Members of the class of ambivalent verbs are compatible with both partitive and accusative marked objects, and depending on which case is assigned, the interpretation of the verb or its object may be affected. Accusative assigners differ in that, by default, they assign accusative case to their objects. While accusative assigners are compatible with partitive marked objects, when they appear with such an object, partitive case affects only the interpretation of that object and not of the verb itself. Similarly, partitive assigners assign partitive case by default. They too are compatible with accusative marked objects, and when they appear with such an object, accusative case affects only the interpretation of that object and not the verb.

That the interpretations of both accusative and partitive assigners are unaffected by the choice in case not only provides evidence for treating the two classes as independent, but also suggests that a lexical semantic property (or conjunction of properties) of these verbs distinguishes the two classes from each other. Kiparsky (1998), for example, claims that the verbs in BOUNDED VPs like ‘killed the bear’, i.e., (1), are accusative assigners, whereas the verbs in UNBOUNDED VPs like ‘look for the bear’, i.e., (2), are partitive assigners. Formal details aside, for Kiparsky, a ‘bounded’ VP is one that cannot be modified by a degree adverbial such as ‘more’ or ‘a lot’. So, for example, in (1), by this diagnostic, we would expect ‘kill’ to be compatible only with accusative case, which it is. On the other hand, in (2), we see that by this diagnostic ‘look for’, an unbounded predicate, is compatible only with partitive case:

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(1) **Accusative assigners**

- a. Tapo-i-n #karhu-a / #kah-ta karhu-a  
kill-Pst-1Sg bear-Part / two-Part bear-Part  
'I killed the (a) bear / (the) two bears'
- b. Tapo-i-n karhu-n / kaksi karhu-a / karhu-t  
kill-Pst-1Sg bear-Acc / two-Acc bear-Part / bear-Pl-Acc  
'I killed the (a) bear / two bears / the bears'

Kiparsky (2005: (8))

(2) **Partitive assigners**

- a. Etsi-n #karhu-n / #kaksi karhu-a / #karhu-t  
seek-1Sg bear-Acc / two-Acc bear-Part / bear-Pl-Acc  
'I'm looking for the (a) bear / two bears / the bears'
- b. Etsi-n karhu-a / kah-ta karhu-a  
seek-1Sg bear-Part / two-Part bear-Part  
'I'm looking for the (a) bear / (the) two bears'

Kiparsky (2005: (7))

However, Kiparsky's analysis breaks down with respect to the class of stative verbs. The stative verbs in (3) assign accusative case to their object, whereas the ones in (4) assign partitive, showing that case assignment is not uniform across the class of statives, though they are called 'unbounded':

- (3) **Stative accusative assigners:** *omistaa* 'own', *sisältää* 'contain', *käsittää* 'comprise', *muistaa* 'remember', *tietää* 'know', *tuntea* 'know', *uskoa* 'believe (something)', and such perception verbs as *nähdä* 'see', *kuulla* 'hear', *huomata/havaita/keksiä* 'notice' ...
- (4) **Stative partitive assigners:** *halveksia* 'despise', *ihailla* 'admire', *ikäväidä* 'yearn for', *pelätä* 'fear', *rakastaa* 'love', *toivoa* 'hope for', *valittaa* 'complain about', *vihata* 'hate' ...

Certainly, one can own a car for a long time or know algebra more than calculus, which under Kiparsky's analysis, means that both 'own' and 'know' should be members of the class of partitive assigners. Instead, I claim that there is a different semantic distinction to be made here: The verbs in (3) seem to have EXISTENTIAL COMMITMENT in that sentences involving an accusative assigner entail the existence of the referent of their object. (If Benny owns a car, then that car must exist). The verbs in (4), on the other hand, lack existential commitment. That is, sentences involving a partitive assigner do not entail the existence of the referent of their object. (If Benny fears the man next door, that man need not exist (Priest, 2000).) More generally, Finnish states which have existential commitment in the logical sense to be made precise below, will be said to be members of the class of accusative assigners, whereas ones that do not will be members of the class of partitive assigners. Assuming Kiparsky's (1998) analysis of SCC in Finnish holds for eventive verbs, the general picture of SCC in Finnish I will paint here is that bounded eventive verbs and stative verbs that have existential commitment assign accusative case, whereas unbounded eventive verbs and stative verbs that lack existential commitment assign partitive case.

## 2. SCC in Finnish

In Finnish, accusative case is morphologically realized by the null suffix  $-\emptyset$  or  $-n$ , if the object is singular; or with suffixal  $-t$  if the object is plural. Partitive case, on the other hand, is realized by suffixal  $-a$ . (See table 1.)

First, because SCC in Finnish is traditionally analyzed in aspectual terms, it will be useful to adopt some terminology and a loose theoretical framework in which to make clear certain linguistic generalizations made in the literature. Here, I assume the class of Finnish transitive verbs can be divided between EVENTS and STATES, where the former class can be further divided amongst ACTIVITIES, ACHIEVEMENTS and ACCOMPLISHMENTS. Activities will be understood roughly as VPs denoting a dynamic event lacking a set terminal point, e.g., 'run'; achievements denote instantaneous events that do

Noun: 'bear'		
	Singular	Plural
Accusative	karhu, karhu- <b>n</b>	karhu- <b>t</b>
Partitive	karhu- <b>a</b>	karhu- <b>j-a</b>

**Table 1:** Accusative & Partitive Case in Finnish

not lack a set terminal point, e.g., ‘recognize’; accomplishments denote durative events that also have a set terminal point, e.g., ‘building a house’; and states are static and do not have a terminal point, e.g., ‘love’.

Second, as discussed in the introduction, in Finnish, the choice in case can affect the interpretation of the verb. This is often referred to as the V-RELATED INTERPRETATION. The interpretation of the noun phrase can also be affected (NP-RELATED INTERPRETATION); or both (V- AND NP-RELATED INTERPRETATIONS). Informally, the choice in case can result in a Finnish verb (V) or noun phrase (NP) having an ‘accusative’ or ‘partitive’ interpretation in a way to be made clear below. Thus an entire Finnish verb phrase (VP = [V NP]) can have an accusative (+A) (or partitive (+P)) interpretation (or some combination of both), yielding four logically possible interpretations of that phrase: *i*) VP = [V<sub>[+A]</sub> NP<sub>[+A]</sub>], *ii*) VP = [V<sub>[+A]</sub> NP<sub>[+P]</sub>], *iii*) VP = [V<sub>[+P]</sub> NP<sub>[+A]</sub>], *iv*) VP = [V<sub>[+P]</sub> NP<sub>[+P]</sub>]. To better illustrate the above points, I will now go systematically through the classes of ambivalent verb and accusative and partitive assigners.

### 2.1. Ambivalent Verbs

Finnish verbs like *ampuaa* (‘shoot’) are referred to as ‘ambivalent verbs’ for two reasons. First, they are compatible with objects marked in either the accusative or partitive case, as (5-a) and (5-b) demonstrate:

- (5) a. Ammu-i-n karhu-n / kaksi karhu-a / karhu-t  
 shoot-Pst-1Sg bear-**Acc** / two-**Acc** bear-Part / bear-Pl-**Acc**  
 ‘I shot at the (a) bear / at (the) two bears / at (the) bears’
- b. Ammu-i-n karhu-a / kah-ta karhu-a / karhu-j-a  
 shoot-Pst-1Sg bear-**Part** / two-**Part** bear-Part / bear-Pl-**Part**  
 ‘I shot at the (a) bear / at (the) two bears / at (the) bears’

Second they have all four logically possible interpretations mentioned in §2 available to them. For example, (5-a) can have the interpretation given in (6-a) or (6-b), whereas (5-b) can have the interpretation given by (6-b) or (6-c). Here, subscripts *Acc* (accusative) and *Part* (partitive) denote the case the NP is marked in, and ‘ $\leftrightarrow$ ’ means ‘implicates’:

- (6) a. I shot and hit [<sub>Acc</sub> the bears] VP = [V<sub>[+A]</sub> NP<sub>[+A]</sub>]  
 b. I shot and hit [<sub>Acc</sub> bears] VP = [V<sub>[+A]</sub> NP<sub>[+P]</sub>]  
 c. I shot [<sub>Part</sub> the bears]  $\leftrightarrow$  I shot at the bears and missed VP = [V<sub>[+P]</sub> NP<sub>[+A]</sub>]  
 d. I shot [<sub>Part</sub> bears]  $\leftrightarrow$  I shot at bears and missed VP = [V<sub>[+P]</sub> NP<sub>[+P]</sub>]

Just as in English, ‘shoot’, understood as an accomplishment, means to shoot and hit whatever it is the subject of the sentence is shooting at. (This is the ‘accusative interpretation’ of the verb mentioned above (written V<sub>[+A]</sub>)). However, understanding the verb as an activity, there is no implication that whatever is shot at is hit. (This is the ‘partitive’ interpretation (V<sub>[+P]</sub>)). On the other hand, ‘bears’ is ambiguous between an (in)definite reading: One may be referring to a definite plurality of bears, say ten. This is the ‘accusative interpretation’ of the NP so discussed (NP<sub>[+A]</sub>). However, in uttering ‘bears’, one may have no specific number of bears in mind. This is the partitive interpretation (NP<sub>[+P]</sub>).

What the above examples illustrate is that, with respect to ambivalent verbs, case is not determined by but rather affects the interpretation of the verb or noun. The verbs in (7) are all ambivalent verbs:

- (7) *syödä* ‘eat’ (*söi piirakkaa* (part.) ‘ate pie, some of the pie’, *söi piirakan* (acc.) ‘ate a/the pie’), *leikata* ‘cut’, *kaivaa* ‘dig’, *kirjoittaa* ‘write’, *lukea* ‘read’ ((part.) ‘read at least part of’ (acc.) ‘read up to some point’, usually ‘finish reading’), *tutkia* ‘investigate’, *siirtää* ‘move’, *sekoittaa* ‘mix’, *lyödä* ‘beat’ ((part.) beat or hit at someone, (acc.) ‘beat someone at something’), *nimitää* ‘name’ ((part.) ‘call by name’, (acc.) ‘nominate’), *muistaa* ‘remember’ ((part.) ‘commemorate’, ‘remember someone with a gift or greeting on a special occasion’ (acc.) ‘recall’) ...

Kiparsky (2005: (12))

For the remainder of this paper, I will disregard the class of ambivalent verbs. My reason is simple: There is no evidence to suggest that members of the class of stative verbs are ambivalent. While the NP-related interpretation of a sentence with a stative verb is affected by the choice in case, as I will show, its V-related interpretation is not. That is, some stative verbs have only an accusative interpretation, while others have only a partitive interpretation. Evidently, what separates the two classes of verbs from each other is a lexical semantic property of the verbs.

## 2.2. Accusative Assigners

Verbs like *tappaa* (‘kill’) are compatible only with accusative marked objects as (8), repeated from (1), illustrates:

- (8) a. *Tapo-i-n #karhu-a / #kah-ta karhu-a*  
kill-Pst-1Sg bear-**Part** / two-**Part** bear-Part  
‘I killed the (a) bear / (the) two bears’  
b. *Tapo-i-n karhu-n / kaksi karhu-a / karhu-t*  
kill-Pst-1Sg bear-**Acc** / two-**Acc** bear-Part / bear-Pl**Acc**  
‘I killed the (a) bear / two bears / the bears’

The data in (8) is slightly misleading: It is actually possible for *tappaa* (‘kill’) to occur with a partitive marked object. In such instances, however, only the interpretation of the NP affected. The infelicity marker (‘#’) indicates that the partitive case cannot affect the interpretation of the verb. Sentences involving accusative assigners have only two of the four logically possible interpretations available to them. For example, sentences like (8) can mean:

- (9) a. I killed [<sub>Acc</sub> the bears] (V<sub>[+A]</sub> and NP<sub>[+A]</sub>)  
b. I killed [<sub>Part</sub> bears] (V<sub>[+A]</sub> and NP<sub>[+P]</sub>)

What the above examples show is that, unlike in (6), the alternative interpretations of sentences like those in (8) occur solely at the level of the NP: Again, ‘bears’ can be interpreted as either being quantitatively determinate or indeterminate. Accusative assigners differ from ambivalent verbs in that alternative V-related interpretations are not available. In the above cases, the interpretation of ‘kill’ remains constant irrespective of what case the NP is marked in

The verbs in (10) are all accusative assigners and pattern like *tappaa* (‘kill’) with respect to their behavior under case assignment. More specifically, they are all achievements or accomplishments – not activities:

- (10) *saada* ‘get’, *löytää* ‘find’, *saavuttaa* ‘reach’, *ostaa* ‘buy’, *ottaa* ‘take’, *säästää* ‘save’, *pudottaa* ‘drop’, *suorittaa* ‘carry out’, *kadottaa*, *menettää*, *hukata* ‘lose (possession)’, *hävittää* ‘lose (game, fight)’, *löytää* ‘find’, *hyväksyä* ‘accept’, *panna*, *asettaa* ‘put’, *tappaa* ‘kill’, *antaa*, *lahjoittaa* ‘give’, *kaataa* ‘fell’, *mainita* ‘mention’, *siepata* ‘catch’, *omaksua* ‘appropriate’, *ripustaa* ‘hang’, *istuttaa* ‘plant’, *myöntää* ‘admit’, *kieltää* ‘deny’ ...

Kiparsky (2005: (9))

At first pass, the verbs in (10) telic. ‘Telicity’ is often thought to coincide with an event having a set terminal point (Krifka, 1989, 1992, 1998), and as most verbs in (10) are accomplishments and achievements, they have one. This suggests adopting the (preliminary) generalization in 2.1:

**Generalization 2.1** (Accusative Assigner). Let V be a Finnish transitive verb. V assigns *accusative case* if, and only if V is *telic*.

However, generalization 2.1 is not quite right: The verb *omistaa* ('own'), a state, is an accusative assigner:

- (11) a. Omist-i-n #karhu-a / #kah-ta karhu-a  
Own-Pst-1Sg bear-**Part** / two-**Part** bear-Part  
'I owned the (a) bear / (the) two bears'  
b. Omist-i-n karhu-n / kaksi karhu-a / karhu-t  
kill-Pst-1Sg bear-**Acc** / two-**Acc** bear-Part / bear-Pl**Acc**  
'I owned the (a) bear / two bears / the bears'

Kiparsky (2005: (35))

Stative verbs are not considered to be telic, thus rendering generalization 2.1 materially inadequate. If *omistaa* ('own') was the only Finnish state that assigned accusative case, then perhaps we could find an independent explanation for its behavior and potentially salvage generalization 2.1. However, there are many other states that assign accusative case, such as those listed in (12), repeated from (3):

- (12) **Stative accusative assigners:** *omistaa* 'own', *sisältää* 'contain', *käsittää* 'comprise', *muistaa* 'remember', *tietää* 'know', *tuntea* 'know', *uskoa* 'believe (something)', and such perception verbs as *nähdä* 'see', *kuulla* 'hear', *huomata/havaita/keksiä* 'notice' ...

The verbs in (12) show that *omistaa* is not an outlier: We cannot explain away the data in (11) as an idiosyncratic fact about Finnish. So, a predicate's being telic is not a necessary nor sufficient condition on being an accusative assigner. I will return to generalization 2.1 and possible revisions of it. However, I turn now to the class of so-called partitive assigners.

### 2.3. Partitive Assigners

Verbs like *esti* ('look for') are compatible only with partitive marked objects as shown in (13), itself repeated from (2), demonstrates:

- (13) a. Etsi-n #karhu-n / #kaksi karhu-a / #karhu-t  
seek-1Sg bear-**Acc** / two-**Acc** bear-Part / bear-Pl-**Acc**  
'I'm looking for the (a) bear / two bears / the bears'  
b. Etsi-n karhu-a / kah-ta karhu-a  
seek-1Sg bear-**Part** / two-**Part** bear-Part  
'I'm looking for the (a) bear / two bears'

Like accusative assigners, partitive assigners can actually appear with objects marked in the accusative. Importantly, the infelicity marker ('#') above indicates that the accusative case cannot affect the interpretation of the verb. And like accusative assigners, sentences involving partitive assigners have two of the four logically possible interpretations. For example, (13-a) can mean (14-a) and (13-b) can mean (14-b):

- (14) a. I am looking for [<sub>Acc</sub> the bears] (V<sub>[+P]</sub> and NP<sub>[+A]</sub>)  
b. I am looking for [<sub>Part</sub> bears] (V<sub>[+P]</sub> and NP<sub>[+P]</sub>)

Again, like accusative assigners, while the interpretation of the NP can vary, that of the V cannot. This suggests that the difference between accusative and partitive assigners lies at the level of the verb and the verb alone; it has nothing to do with the lexical semantics of its object. Other partitive assigners include the verbs in (15):

- (15) *halveksia* ‘despise’, *ihailta* ‘admire’, *ikävöidä* ‘yearn for’, *harrastaa* ‘be interested in (as a hobby)’, *huvittaa* ‘amuse’, *ikävyystyttää* ‘bore’, *inhota* ‘feel revulsion towards’, *kadehtia* ‘envy’, *karttaa* ‘avoid’, *ylistää* ‘praise’, *kiinnostaa* ‘interest’, *kiittää* ‘thank’, *kunniottaa* ‘honor’, *moittia* ‘blame, reprimand’, *onnitella* ‘congratulate’, *pelätä* ‘fear’, *rakastaa* ‘love’, *sietää*, *siunata* ‘bless’, *toivoa* ‘hope for’, *valittaa* ‘complain about’, *vihata* ‘hate’, *väsyttää* ‘tire’ ...

Kiparsky (1998: (25a))

All of the verbs in (15) are activities and states, whence atelic, as they lack a set terminal point. This suggests adopting the (preliminary) generalization in 2.2:

**Generalization 2.2** (Partitive Assigner). Let V be a Finnish transitive verb. V assigns *partitive case* if, and only if V is *atelic*.

However, if we assume that both generalizations 2.1 and 2.2 are true, we are inevitably led to erroneous (empirical) predictions: By generalization 2.1, verbs like *omistaa* (‘own’) are said not to be accusative assigners, which they are; but by generalization 2.2, they are said to be partitive assigners, which they are not.

### 3. Boundedness

Kiparsky (1998) also concludes that ‘telicity’ cannot be the property that divides the class of Finnish transitive verbs between those that are strict accusative assigners from those that are strict partitive assigners. He argues that ‘boundedness’ is the relevant property. For Kiparsky,

“a predicate is *intrinsically unbounded* if it can be modified by degree adverbs such as (*some*) *more*, *a lot*, *very much*, *a bit*, *somewhat less*, *considerably*, *slightly*, referring to the extent of a single eventuality. What is relevant is the gradability of the event: bounded predicates, whether telic or atelic, admit of no degree.”

Kiparsky (1998)

According to Kiparsky’s (1998) analysis, achievements and accomplishments are bounded while activities are unbounded. Moreover, states like ‘own’ would have to be bounded, whereas states like ‘love’ would be unbounded. This is best shown in the following examples:

- (16) John  $\left\{ \begin{array}{l} \text{\#owns} \\ \text{loves} \end{array} \right\}$  his car a lot

In (16), we see that the state ‘own’ cannot be modified by the degree adverbial ‘a lot’, whereas the state ‘love’ can. Intuitively, one cannot ‘sort of’ own a car; one either owns it or does not. However, one can certainly love a car to a greater or lesser degree, and thus ‘own’ is bounded, whereas ‘love’ is not.

Reviewing again the data presented in section §2, bounded verbs seem to coincide with the class of accusative assigners, whereas unbounded ones comprise the class of partitive ones. Thus Kiparsky offers the following (revised) generalizations:

**Generalization 3.1 (Accusative Case** (Kiparsky (1998))). Let V be a Finnish transitive verb. V assigns *accusative case* if, and only if the VP headed by V is *bounded*.

**Generalization 3.2 (Partitive Case** (Kiparsky (1998))). Let V be a Finnish transitive verb phrase. V assigns *partitive case* if, and only if the VP headed by V is *unbounded*.

To ward off any confusion regarding generalizations 3.1 and 3.2 in relation to those in 2.1 and 2.2, a few comments are in order. As I briefly alluded to, Kiparsky (1998) attempts to account for the V-related and NP-related of Finnish transitive verbs by appealing solely to the property of ‘boundedness’. As these interpretations are, many times, affected by the compositional semantic process, his generalizations are formulated at the level of VP, not V. For Kiparsky, a VP is ‘unbounded’ just in case its head or complement is.

### 3.1. Apparent Problems

As was shown, an appeal to ‘telicity’ to explain case assignment patterns in Finnish failed to cut across aspectual lines and unify states that pattern with accomplishments and achievements from states that pattern with activities. Kiparsky’s notion of boundedness is meant to do just that. However, the most obvious counter-examples to Kiparsky’s generalizations involve the Finnish accusative assigners *tietää* (‘know’), *tuntea* (‘know’) and *uskoa* (‘believe’):

- (17) a. John knows calculus somewhat more than analysis  
 b. John believes Mary less than most (others)

As (17-a) and (17-b) would suggest, knowledge and belief (in something or someone) is gradable. Given that ‘know’ and ‘believe’ can be modified by degree adverbs, they qualify as unbounded, and whence by generalization 3.2, are said to assign partitive case. However, in section §2.2, it was shown that these verbs assign accusative case to their objects. And as both of these verbs are states, at least on the face of it, the property that divides this class of verbs is not boundedness after all. So, we are again left in the same unfortunate position that we were in at the end of section §2.3: The class of statives is unwieldy, refusing to be characterized by a single property *P*.

As far as I can tell, there are two possible solutions to the problem of SCC in Finnish: (i) develop a theory of states in which Kiparsky’s theory of (un)bounded events can naturally be realized; or (ii) look for an alternative explanation. In the remainder of this paper, I will pursue the latter route, in the hopes that the explanation I provide is not only empirically adequate, but also consistent with our intuitions regarding the nature of statives. The picture I will paint of SCC in Finnish is dramatically different than Kiparsky’s (1998). I will not attempt to identify a single property *P* that divides the class of accusative assigners from the partitive ones. Instead, I will seek an independent explanation for the behavior of states under case assignment in Finnish.

Because past investigations into SCC in Finnish have looked primarily at various aspectual properties of verbs in hopes of explaining their case assignment behavior, the obvious starting off point for my investigations would be in the same domain. However, looking at the verbs in (3) and (4), I was particularly struck by the fact that all of the stative verbs that assign partitive case are, at least at first glance, INTENSIONAL verbs, while the stative verbs that assign accusative case are EXTENSIONAL ONES. In the next few sections, I will show that, this initial characterization is only partially on the right track: While the property of intensionality does not distinguish the class of accusative assigners from partitive assigners, the property of existential commitment – often associated with intensionality – does.

## 4. Intensional Transitive Verbs

‘Intensionality’ is a rather nefarious concept that dates back to at least Frege (1948). (But see also Putnam (1975); Carnap (1988) among others for a more detailed discussion than I give here.) The basic idea is that, while certain terms like ‘Hesperus’/‘Phosphorus’ or ‘Superman’/‘Clark Kent’ refer to (or ‘denote’) the same objects in the world, they carry with them different intensions (or ‘senses’; or ‘meanings’). For example, the sentence ‘Lois Lane loves Superman’ intuitively means something different, or rather, expresses a different proposition, than say the statement ‘Lois Lane loves Clark Kent’ in virtue of the fact that ‘Superman’ connotes differently than ‘Clark Kent’.

While Frege concerned himself primarily with the intensions of proper names, here, I will focus on the class of so-called INTENSIONAL TRANSITIVE VERBS (ITV). Dating (at least) back to Quine (1960); Montague (1974), discussion of these verbs has largely centered around intensional transitive verbs like ‘seek’ (an ITV) and ‘find’, an EXTENSIONAL transitive verb (ETV):

- (18) John  $\left\{ \begin{array}{l} \text{seeks} \\ \text{finds} \end{array} \right\}$  a unicorn

The class of intensional transitive verbs includes verbs of depiction and evaluation, among others:

- (19) **Depiction verbs:** *draw, sculpt, imagine*, **Search verbs:** *seek, look for, hunt*, **Evaluative verbs:** *respect, admire, disdain, worship* and **Psychological verbs:** *love, fear*

Semantically, ITVs are thought to have three distinguishing (or defining) properties: *i*) they do not preserve truth under the substitution of identicals; *ii*) they are ambiguous between de dicto and de re readings, i.e., they are REFERENTIALLY OPAQUE; and they do not have existential commitment. In the next three sub-sections, I will review each property in detail, making sure to draw a sharp contrast between the class of ITVs and ETVs.

#### 4.1. Substitution of Identicals

ITVs do not preserve truth under the substitution of identicals. It's not difficult to imagine situations in which one of the statements in (20) is true, while simultaneously the other is false:

$$(20) \quad \text{Lex Luther fears } \left\{ \begin{array}{l} \text{Superman} \\ \text{Clark Kent} \end{array} \right\}$$

Given that Lex Luther, for example, does not know Clark Kent is in fact Superman, there is no reason to suspect he fears Clark Kent. After all, Kent is a bromide and powerless in the face of Luther's diabolical resources. There is no doubt, though, that Luther fears his arch-enemy, Superman; after all, the Man of Steel is a titan among men. On the other hand, ETVs do preserve truth under the substitution of identicals, thus distinguishing them from ITVs:

$$(21) \quad \text{Lois knows } \left\{ \begin{array}{l} \text{Superman} \\ \text{Clark Kent} \end{array} \right\}$$

If Lois knows Superman, then she knows Clark Kent (and vice versa). More generally, Let  $R$  be any transitive verb. If  $R$  is an ITV, then (4.1.1) does *not* hold for all models  $\mathbb{M}$ :

$$\mathbb{M} \models \forall x, y, z, \forall w (y =_w z \rightarrow R_w(x, y) \leftrightarrow R_w(x, z)) \quad (4.1.1)$$

where  $x, y,$  and  $z$  are variables ranging over individual entities, and  $w$  is a variable ranging over possibilities.

#### 4.2. Referential Opacity

Sentences like (22) involving ITVs are said to be (at least) two-ways ambiguous:

$$(22) \quad \text{Mary is looking for a professor who teaches Greek}$$

Partee (2008: (1))

Mary could have a specific professor in mind, say, Professor of Classical Studies and Greek – Bernard J. Ortcutt. This is the de re ('specific') reading. Or Mary could be simply looking for an individual that meets the description 'a professor who teaches Greek'. In this situation, Mary does not have a specific person in mind – anyone will do. This is the de dicto ('non-specific') reading.

Sentences that involve extensional transitive verbs lack a non-specific reading:

$$(23) \quad \text{Mary found a professor who teaches Greek}$$

If Mary found a professor, then trivially, there must be a specific one that Mary found. So, ITVs and ETVs differ in that members of the former class, not the latter, are referentially opaque, or rather, ambiguous between (at least) two readings.

#### 4.3. Existential Commitment

In the case of (18) (repeated below), the existence of a unicorn is not guaranteed by the fact that John seeks it:

$$(24) \quad \text{John } \left\{ \begin{array}{l} \text{seeks} \\ \text{finds} \end{array} \right\} \text{ a unicorn}$$

John could be mad and given over to his own private delusions despite the facts of the matter, in which case the statement ‘John seeks unicorns’ would be true irrespective of the non-existence of unicorns. If, on the other hand, John finds a unicorn, then it must be the case that there exists an actuality referred to be the term ‘unicorn’. So, ITVs and ETVs differ in that the former class, not the latter, lacks existential commitment.

We can represent the insights above schematically. Let  $R$  be any transitive verb. If  $R$  is an ITV, then the statement in (4.3.1) does not hold for all models  $\mathbb{M}$ :

$$\mathbb{M} \models \forall x, y \forall w (R_w(x, y) \rightarrow \text{Exist}_w(y)) \quad (4.3.1)$$

#### 4.4. Intensionality and SCC in Finnish

Now, of the three properties discussed in the previous sub-sections, existential commitment appears to be the one that divides the class of accusative assigners from partitive ones. We can rule out substitution of identicals for one, as the sentences in (25) mutually entail one another:

- (25) Lex Luther complains about  $\left\{ \begin{array}{l} \text{Superman} \\ \text{Clark Kent} \end{array} \right\}$

So, ‘complain about’, a partitive assigner, allows for the substitution of identicals. And as we saw in (21), ‘know’, an accusative assigner, does as well. This being the case, Moreover, an appeal to referential opacity will not work either, for consider the following example:

- (26) Mats owns 75% of the metallic objects in the basement.

Zimmermann (1993)

As Zimmerman points out, “the above example can be true if Mats holds 75% of the objects mentioned without thereby owning any particular ball bearing”. This shows that the accusative assigner, ‘own’, has a non-specific reading. But as we saw in 4.2, ‘look for’, a partitive assigner, is also referentially opaque.

However, the states that assign partitive case in (4) (repeated below in (27)) all lack existential commitment:

- (27) **Stative partitive assigners:** *halveksia* ‘despise’, *ihailla* ‘admire’, *ikävöidä* ‘yearn for’, *pelätä* ‘fear’, *rakastaa* ‘love’, *sietää*, *toivoa* ‘hope for’, *valittaa* ‘complain about’, *vihata* ‘hate’ ...

To better illustrate this point, consider the following story:

Benny fears the man next door. The man is a rather nasty character and a convicted criminal. Benny fears that he may break in and murder him one night. But in reality there is no such man next door: the house is, in fact, empty. Benny has simply overheard snatches of conversations between his neighbours about different subjects (the house next door and a murderer that has just been arrested), and, being a nervous individual, jumped to confused conclusions. So whom does Benny fear? The man next door; something that does not exist. that is the obvious answer.

Priest (2008)

As Priest makes perfectly clear, simply because someone fears an object, that object need not exist. The same can be said about verbs like ‘despise’, ‘admire’ and ‘love’: One can despise non-existent objects; one can admire them; and sadly, one can in fact love them.

Importantly, that the verbs in (27) lack existential commitment seems to be true irrespective of the type of (grammatical) object chosen, e.g., a proper name, indefinite or plural, which indicates this is in fact a true lexical semantic property of the verb itself and not a function of the way in which the meanings of both the verb and its object are put together. This is evidenced by the example in (28):

$$(28) \quad \text{John fears} \left\{ \begin{array}{l} \text{Bill} \\ \text{a dog} \\ \text{unicorns} \end{array} \right\} \not\Rightarrow \left\{ \begin{array}{l} \text{Bill} \\ \text{A dog} \\ \text{Unicorns} \end{array} \right\} \text{ exist(s)}$$

The above data suggest that the property of existential commitment is one that holds of verbs and verbs alone. This is important: Remember that members of the class of accusative and partitive assigners both allowed for a meaning shift with respect to their NP-related interpretation. However, they did not allow for a meaning shift in their V-related interpretation. As I argued, the differing behavior under case assignment between the two classes has something to do with the lexical semantics of the verbs themselves, not their objects. With respect to the stative partitive assigners considered in this paper, the property of existential commitment appears to be solely a property of those verbs and thus remains a live option in explaining the difference between them and stative accusative assigners.

As expected, the Finnish states that assign accusative case (shown first in (3) and repeated again in (29) below) all have existential commitment:

- (29) **Stative accusative assigners:** *omistaa* ‘own’, *sisältää* ‘contain’, *käsittää* ‘comprise’, *muistaa* ‘remember’, *tietää* ‘know’, *tuntea* ‘know’, *uskoa* ‘believe (something)’, and such perception verbs as *nähdä* ‘see’, *kuulla* ‘hear’, *huomata/havaita/keksiä* ‘notice’ ...

Similarly, that the verbs in (30) have existential commitment appears to be true irrespective of the type of object chosen, which, again, indicates that this is not a function of the way in which the meanings of both the verb and its object are put together. This is supported by the data in (30):

$$(30) \quad \text{John knows} \left\{ \begin{array}{l} \text{Bill} \\ \text{a dog} \\ \text{unicorns} \end{array} \right\} \Rightarrow \left\{ \begin{array}{l} \text{Bill} \\ \text{A dog} \\ \text{Unicorns} \end{array} \right\} \text{ exist(s)}$$

The above examples show that the existential commitment of the verb ‘knows’ is not obliterated by the choice in object. So, having established these facts, I claim that the class of Finnish statives can be divided along the lines of existential commitment.

**Generalization 4.1 (Accusative Case (Final)).** Let  $V$  be a Finnish transitive stative verb.  $V$  assigns *accusative case* if, and only if  $V$  has *existential commitment*.

**Generalization 4.2 (Partitive Case (Final)).** Let  $V$  be a Finnish transitive stative verb.  $V$  assigns *partitive case* if, and only if  $V$  lacks *existential commitment*.

#### 4.5. A logical analysis

I argue that existential commitment as it relates to the sorts of transitive verbs discussed above is a lexical semantic property which can be encoded for by adopting a set of MEANING POSTULATES of the form:

$$\forall w \forall x, y (R_w(x, y) \rightarrow \text{Exist}_w(y)) \quad (4.5.1)$$

I understand a ‘natural language meaning postulate’ to be nothing more than a premise added to a natural language theory  $T$ , itself comprised of other natural language meaning postulates. The purpose of a natural language theory is to constrain the class of admissible ‘models of the world’ so-to-speak to coincide with the apparent laws of our own. The analogy between natural language meaning postulates and theories is between, say, logical axiomatizations of Peano Arithmetic. That is to say, I assume meaning postulates are counterparts to the axioms of Peano Arithmetic; and a natural language theory is counterpart to the set of all Peano axioms. Finally, meaning postulates are assumed because they are descriptively adequate.

For me, a transitive verb like ‘own’ has existential commitment just in case we have adopted a meaning postulate of the form in (4.5.1) in our natural language theory  $T$ :

$$T \cup \forall w \forall x, y (\text{own}_w(x, y) \rightarrow \text{Exist}_w(y)) \quad (4.5.2)$$

where *own* is the translation of ‘own’ into some logical language, say an intensional higher order one. I say that a transitive verb *R* lacks existential commitment just in case we have not adopted a meaning postulate of the form in (4.5.1).

## 5. Conclusion

In this paper, I investigated SCC in Finnish as it relates to simple transitive verbs. As SCC is sensitive to the lexical semantic properties of a verb, its object, and the way in which their meanings are put together, the goal was to identify a lexical semantic property that distinguished the class of accusative- and partitive-assigners.

Along the way, I showed that an appeal to ‘telicity’ and ‘boundedness’ did not correctly predict the behavior of Finnish statives under case assignment. Putting achievements, accomplishments and activities aside, I focused solely on the class of Finnish statives in an attempt to find an independent explanation for their case-assignment behavior.

The picture that emerged is that Finnish states that assign accusative case have existential commitment, whereas Finnish states that assign partitive case lack existential commitment. Taking this property in conjunction with Kiparsky’s (1998) notion of ‘boundedness’ yields a more complete picture of SCC in Finnish, shown in table 2.

		Case	
		Partitive	Accusative
Event	Bounded		✓
	Unbounded	✓	
State	Existential commitment		✓
	No existential commitment	✓	

**Table 2:** SCC in Finnish

My ultimate hope is that, somewhere along the way, a relation between ‘existential commitment’ and ‘boundedness’ can be found. I leave this for future work.

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