Tuomas Huumo

Bound Domains:A Semantic Constraint on Existentials

1. Introduction

This article is a study of the semantic relations expressed in Finnish existential and locative structures (SVX and XVS), consisting of a locative adverbial, the subject and the verb. The purpose of this study is to examine how word order determines the semantic interpretation of the adverbial (X) in these structures. A fundamental difference between the locative (SVX) and existential (XVS) structures is that the adverbial has more numerous and variable functions in the SVX structure, whereas the XVS structure sets more limits to its semantic interpretation. The reason for this is that the adverbial serves as a "starting point" of the presented information in the XVS structure (see Chafe 1994: ch. 7); whereas in the SVX structure it belongs to the rheme and merely gives a predication about the referent of the subject. The semantic interpretation of the adverbial can thus be partly built on semantic information presented previously in the sentence in the SVX but not in the XVS structure: in the XVS structure the adverbial introduces a "file" to which information can be introduced (see Gernsbacher 1990).

Existential XVS structures can be seen as statements about a domain or a location, introducing their content, and from the textual point of view they often have the function of introducing new referents into the discourse; they are thus "statements about (relevant parts of) the discourse world, observations about its contents and not about what the objects it contains do" (Vilkuna 1989:164). Besides introducing new entities, existentials also fulfill another function – that of predicating the content of the

domain expressed by the adverbial. The entity denoted by the subject is thus brought into the discourse, not as such but as part of the domain. The domain can be spatial, possessive, temporal, or other. In Finnish, it is the basic meaning of the nominal stem in the adverbial expression which determines its interpretation as an indicator of a certain semantic domain (see examples 1-3).

- (1) Pöydällä on käärmeitä.

 Table + ADE be + 3sG snake + PL + PAR

 There are snakes on the table'.
- (2) Liisalla on käärmeitä. Liisa+ADE be+3sG snake+PL+PAR `Liisa has (some) snakes'.
- (3) Kesällä on käärmeitä.
 Summer + ADE be + 3sG snake + PL + PAR
 `In summer there are snakes'.

In these structures, the adverbial serves as a theme (i.e. clause-level topic) and it is understood to create a base to which other entities are introduced. A crucial factor in XVS structures is thus an *inclusiveness* relation between the domain and the referent of the subject. The locative SVX structure, on the other hand, gives a predication about the referent of its subject, and the function of the adverbial is to report a domain, a location or a state of the referent of the subject. The relation does not have to be one of inclusion: it can also be an internal state of the entity. Therefore the adverbials in existential structures are sometimes understood in a more concrete and independent sense than adverbials in corresponding SVX structures, as will be demonstrated in this article.

This semantic constraint manifests itself most apparently in sentences where the adverbial indicates a domain that is conceptually dependent on its "content", i.e. on the entity which is "in" it, indicated by the subject. For such predications, only the SVX

structure seems to be natural; XVS order invites the comprehender to interpret the adverbial in a different sense, or makes the sentence either ungrammatical or textually marked¹, presuming a specific context or emphasizing some element (or doing both).

Instances of this type of domain are mental states (see example 4) and activities indicated with infinitival structures in Finnish, linguistically represented as states or locations where the referent of the subject "is situated" (example 5).²

With the term textually marked, I refer to word order variants which require a specific context or a contrastive reading to be natural. For example, a textually unmarked transitive clause has the SVX word order (Pappi luki kirjan [Priest + NOM read + PST + 3SG book + ACC] `The priest read the book'), whereas an OVS order (Kirjan luki pappi) has to get a reading which emphasizes that it was precisely the priest who read the book. Typically the OVS structure cannot get a neutral prosodic reading, though there are some exceptions where the mutual saliency relation of the subject and the object allows OVS to be the neutral order, such as Minua pisti ampiainen I+PRT sting +PST +3SG wasp + NOM 'I was stung by a wasp' (see Vilkuna 1989: 180-181). On the other hand, a structurally light element such as a pronoun tends to be placed towards the beginning of the sentence, so that for example Sen luki pappi [It+ACC read+PST+3SG priest+NOM] `It was read by [a/the] priest') can occur in a specific context, where the book is given information and can be referred to by the pronoun; in this case, the subject does not have to be emphasized in the same way as in the OVS variant with a full noun object. As for existentials, or, more generally speaking, LOC+V+SUBJ structures, the textually neutral reading seems to be possible only if the sentence carries an existential meaning, i.e. if it introduces the referent of the subject as new information into a domain which is introduced by the adverbial and conceptually independent of the referent of the subject.

² The following abbreviations are used in the glosses: ABE - abessive ABL - ablative; ACC - accusative; ADE - adessive; ALL - allative; ELA - elative; ESS - essive; GEN - genitive; ILL - illative; INE - inessive; INF - infinitive; INSTR - instructive; PAR - partitive; PERS. - person; PL - plural; PSF - possessive suffix; PST - past tense; SG - singular; TRA - translative.

- (4) Tyttö on humalassa.
 Girl be+3sG intoxication+INE
 The girl is drunk'.
- (5) Opiskelija on lukemassa.
 Student be+3sG read+3INF+INE
 The student is reading'.3

Examples (4) and (5), unlike typical locative structures, do not relate the referents of their subjects to external domains or dimensions but predicate internal states of these entities themselves. Adverbials of this type have sometimes been called *circumstantials* (a detailed description of Finnish circumstantials is Onikki 1990, based on Jackendoff's theory of conceptual semantics; for the description of circumstantials, see Jackendoff 1983, especially pp. 198-202). However, I prefer to call these elements indicators of *bound domains* as they denote domains which are conceptually dependent on another entity. The grammatical (morphological) coding of these domains is similar to the coding of typical *unbound* domains, such as time, space, or possession, i.e. domains that are not conceptually dependent on the entities situated in them.

The boundness of a domain is not its inherent property but a *relation* between the entity conceptualized as a domain and another entity, typically the referent of the subject of the construction. However, this fact does not distinguish bound domains from other locations, because as Heine (in press) convincingly argues, it is also true that a locative relation is only *a relation* between two entities rather than an inherent property of one entity. Thus for example in a relation like `the book is in the box', there are two entities, a book and a box, and the box as such is *not* a location; it is a location only with respect to the book, whose position is

³ Finnish [olla `to be' + 3rd infinitive] forms do not always correspond to the English so-called progressive forms; for a study on the differences between the English and Finnish tense systems, see Markkanen (1979).

defined in relation to the box. Thus, the difference between bound and unbound domains is such that a bound relation between entity A and entity B means that B is, at the same time, conceptually dependent on A. Typically bound domains are metaphorical locations, but certain physical domains can also be bound; good examples of this are the front, the back and the top of an entity. Bound domain markers can be referential or non-referential; however, knowing whether an entity is referential or not is still not enough to make a decision concerning its boundness (for details, see examples 35 and 36 and the discussion of them). It can thus be argued that a certain domain can be conceptualized either as bound or unbound, depending on its semantic relation to other entities in the sentence; the semantic or discourse properties of an entity as such are not enough to make it bound or unbound.

The fact that adverbials denoting bound domains have occurrence restrictions in the XVS structure, can be demonstrated by manipulating the word order in (4) and (5); see (6) and (7):

(6) Humalassa on "tyttö.⁵ Intoxication+INE be+3sG girl `It is the girl who is drunk'.

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⁴ The semantic behavior of physical relational terms in the SVX and XVS structures resembles, in some respects, the behavior of bound domain markers. For instance, *Tyttö hyppäsi vasemmalle* [Girl+NOM jump+PST+3SG left+ALL] `The girl jumped to the left' indicates that the girl jumped into a direction that was her left, but *Vasemmalle hyppäsi tyttö* [Left+ALL jump+PST+3SG girl+NOM] gets a reading where some girl jumped into a location which was to the left of the speaker. Thus the XVS structure, again, tends to search for an interpretation where the domain indicated by the adverbial is independent of the subject.

⁵ Following the notation of Vilkuna (1989), the symbol " is used to indicate the constituent that gets stressed in the relevant word order variant.

(7) Lukemassa on "opiskelija. Read+3INF+INE be+3SG student `It is the student who is reading'

In example (6), as in example (4), the locative *humalassa* `drunk' denotes a bound domain which is conceptually dependent on the girl. Therefore the sentence cannot get the neutral reading of a typical existential (something like *"In intoxication there is a girl"): this is because the domain of drunkenness does not exist without the person who is "situated in" it (in a metaphorical sense), i.e. who is in a state of being drunk. Therefore example (6) is interpreted as a textual variant of (4): it presupposes that some person is drunk and picks up the girl from a discourse-specific group of possible candidates.

From this point of view, example (7) is even more interesting. At first sight it may appear ungrammatical, but on careful examination a natural context can be found for it: it indicates that some conventional function of reading (e.g. the reading in a church service) is presently occupied by the student. The bound domain in example (7) is thus given a *conventionalized* reading which makes it unbound and thus independent of entities occupying it at different moments. This even makes it possible to give example (7) the interpretation of typical existential clauses (though the textually marked reading which emphasizes the subject is perhaps still the primary one): the student is introduced as a discourse-new entity into the conventional function of reading, whose conventionality has the consequence that it is not any more conceptually dependent on one specific individual.

In the following discussion I examine different subtypes of bound domain markers and their behavior in locative-existential structures. My assumption is that if an adverbial indicating a bound domain is placed into the initial position in an XVS structure, then the sentence gets either a textually marked reading (6) or a semantic interpretation quite different from that of the corresponding SVX structure (cf. 5 vs. 7). There thus exists a

semantic constraint on proper existentials such that they cannot have bound domain markers as their initial adverbials. If a bound domain marker is placed into the initial position of the XVS structure, the interpretation of the sentence is either textually marked (if the bound domain reading is maintained, as in 6), or one where the bound domain marker is reinterpreted as an indicator of an unbound domain, thus making the "existential" reading possible.

The discussion proceeds as follows: section 2 is a brief survey of the basic functions of the SVX and XVS locative structures. Section 3 discusses the semantic function of bound domain markers as indicators of states as metaphorical locations. Section 4 introduces different subtypes of bound domain markers: the discussion in 4.1 covers bound domains expressed with locative-case nouns, whereas 4.2 discusses infinitival bound domain expressions. In 4.1 I show how the placement of a bound domain marker into an existential structure may affect the interpretations concerning the inclusiveness relations and the figure/ground interpretation of the sentence. As subtypes of bound domains I also discuss certain nominal expressions of origin. clothing and activity. In the discussion in 4.2 I argue that the semantic function of Finnish locative-case infinitive forms is one of introducing an activity as a bound domain. It is also argued that an infinitival bound domain marker can occur in the initial position of an existential structure only if it is understood to indicate a conventional function which is occupied by different individuals at different times. Thus, in these cases, it has features of typical unbound domains. I also discuss examples with both nominal and verbal (infinitival) locative expressions, and I examine how the mutual relation of these different elements is understood

2. Background: semantic functions of the SVX and XVS structures

A characteristic feature of Finnish XVS existential constructions is their semantic function as introducers of entities into the discourse. This function is often seen as distinguishing existential structures functionally from other structures (typically transitive and intransitive clauses), which give predications about entities already established as part of the discourse. The difference in communicative function between existentials and other structures is emphasized in a study by Firbas (1992: 66-70), who proposes a division into two types of "functional sentence perspective". The first one is called the "quality scale", covering predications about already established entities; the other one is the "presentation scale" and it covers sentences establishing new referents into the discourse. This second-mentioned perspective is often realized by existential structures in actual language.

This hypothesis that there is a fundamental communicative difference between existentials and other structures gains support from language typology, which has observed that it is very common for languages to structural distinquish between existentials and other structures. Furthermore, locative structures where the subject precedes the locative adverbial tend to have the function of giving a predication about the referent of the subject, whereas X(V)S structures establish new referents in the discourse. In many languages, the subject of the S(V)X structure tends to be definite, but X(V)S structure marks its subject as indefinite. (Clark 1978.)

Some Finnish linguists have also claimed that there is a basic distinction between existentials and other clause types (see Hakanen 1972, 1978, for syntactic criteria, and Huumo & Perko 1993, who use semantic criteria and see the "amount of existentiality" expressed in different structures as a continuum). The discourse functions of Finnish existentials are examined by

Vilkuna (1989: ch. 4.2.), who also argues that the existential structure represents a discourse function which differs from that of typical SV(X)-(in)transitive structures, i.e. that of establishing new entities in the discourse.

Some Finnish linguists have emphasized the locative function of existential constructions, i.e. that of predicating the content of a domain (see Ikola 1954: 225-226; 1955: 322; Siro 1964a: 49-50; Vilkuna 1992:87; Huumo & Perko 1993). Others have stressed the fact that existential constructions express existence in an absolute sense (see, for example, Penttilä 1955, 1956). This latter view has ignored the semantic function of the sentence-initial adverbial, and therefore it has led to some confusion because it is not always the case that the referents of existential subjects are *textually* new, or "brand-new" in the sense of Prince (1981). In many cases, elements referring to "given" or "unused" entities in Prince's taxonomy occur as subjects of existentials, see example (8):

(8) Saunassa oli isäsi.
Sauna + INE be + PST + 3SG father + 2ND PERS. PSF
`In the sauna, there was your father'.

As existential constructions do not always introduce textually new entities and are not always structurally distinguishable from corresponding locative structures, their status as independent syntactic units has been questioned (for critical discussions on the unit-status of Finnish existential constructions, see Karlsson 1979, Hakulinen & Karlsson 1979: 95-96). A possible solution to the problem, proposed by Vilkuna (1992:87) is to note that `existential', as it is used in the Finnish grammatical term `existential sentence', actually refers to a pure inclusiveness relation between a location and the referent of the subject (and not a relation between the referent of the subject and world "as such"). This view is, in fact, in accordance with the original conception of existence as proposed by Ikola (1955: 322-323), where existential structures are seen as indicating the existence of an entity in the

location, without taking a stand on implications concerning its existence elsewhere. Huumo & Perko (1993) have termed this interpretation of existence the *relative* (versus the *absolute*) type.

Against this background, the definiteness of the subject in certain existential structures is not a problem. Definiteness is a textual or discourse phenomenon, and textually known referents may be also introduced into domains, if the assertion of their existence in a particular domain is relevant information in the discourse. This interpretation of existence can thus account for examples like (8). The example is not expressing the "existence" of the addressee's father in the world but only his location in the sauna. The cognitive status of the subject (in the terms of Chafe 1987) as part of given or new information is thus examined from the point of view of *relational*, not *referential* givenness (see Siewierska 1991: 156).

If existential XVS structures are seen as indicators of relative, not absolute existentiality, their function comes very close to that of corresponding SVX locative structures. In fact, the semantic identity of these structures was put forward by Siro (1964a:49), who argued that a structure consisting of three parts – a subject, a verb of the "existential" type, and a "quasi-predicate" (which roughly means the same as "locative adverbial") – is used to express existence irrespective of its word order. He gives the following examples:

- (9) Tuvassa on ukko. Living-room+INE be+3SG old-man+NOM `There is an old man in the living room'.
- (10) Ukko on tuvassa. The old man is in the living room'.

In Siro's analysis, (9) and (10) are identical in that they both express a locative relation between the living room and the old man. Siro, however, observes that the change in word order has an effect on the interpretation of the "nature" of the subject (in

present-day terms this would be seen as a given-new distinction). Siro's analysis can thus be seen as decomposing the function of existentials: he distinguishes the semantic relation between the adverbial and the subject from decisions concerning their definiteness and theme-rheme relations.

However, as shown in section 1 of this article, it is not always the case that the SVX and XVS structures with a locative or existential function indicate identical spatial relations and that the only difference between them is a difference in theme-rheme interpretations and definiteness. In the rest of this article I examine the function of word order in determining the semantic interpretations of SVX vs. XVS structures with bound domain indicators as the adverbial, "X". The focus of this discussion will be on the understood inclusiveness relations between the location and the subject, and on constraints regarding word order, based on the semantic type of the locative adverbial. Less attention will be paid to problems traditionally regarded as the most central ones within the study of existentials: the properties of the subjects and their case variation (between nominative and partitive) and quantification (for studies on these problems, see for example Vähämäki 1984, Larjavaara 1988, Vilkuna 1992).

3. Bound domains: states as locations

As stated above, the most obvious deviation from the general principle that locative-existential SVX and XVS constructions are not only both grammatical but also convey the same semantic meaning seems to be a structure where the adverbial denotes a bound domain. In addition to the bound domains of the examples in section 1, another typical example of a bound domain is a sickness:

(11) Elmeri on flunssassa.

Name be+3sG flu+INE

Elmer has the flu'

Example (11) reports Elmer's sickness with a locative metaphor, indicating that he is "in" the sickness (compare the structure of example 11 with typical locative structures such as 5 and 9). The sickness is thus seen as a container having a person in it (for properties of container and other metaphors, see Lakoff 1987). As typical indicators of bound domains, example (11) also differs from locative structures in that the corresponding XVS structure is either unnatural or textually marked (see 12).

(12) Flunssassa on "Elmeri.
`It is Elmer who has the flu'.

Because the domain of a sickness is bound with respect to the person who has the sickness, example (12) cannot get the inclusion-type reading of a typical existential structure, where the referent of the subject (Elmer) would be introduced as new information into the domain (`the flu'). Therefore (12) can only be understood as a textual variant of (11), emphasizing that it is precisely Elmer who has the flu (as opposed to other possible candidates relevant in discourse).

Semantically, inherent states such as being drunk (example 6) or being sick (12) are only one subgroup of bound domains. This subgroup also contains mental and physical expressions, for instance *olla uuvuksissa* `be exhausted', lit. "be in exhaustion", *olla lopussa* `be finished', lit. "be in the finish"; it also includes such expressions as *olla unessa* `be asleep', lit. "be in the dream", *olla ajatuksissaan* `be deep in thought', lit. "be in one's thoughts". Inherent states can be classified as *abstract* bound domains, as they do not indicate concrete locative relations (for concrete physical bound domains, see section 4.1.2.).

The boundness of a domain does not, however, correlate with its abstractness in a straightforward sense, and there are both bound and unbound abstract domains. For example, a `story' is an abstract domain which does not exist in the real world, but it is not bound in the sense discussed above, because it is not conceptually dependent on any entity occurring in the real world either. On the other hand, a `dream' is bound with respect to the person having the dream: it occurs only in the imagination of that (animate) entity.

This semantic difference between bound and unbound abstract domains manifests itself in cases where both concrete and abstract adverbials occur in a single sentence. An unbound abstract domain always takes the concrete locative under its scope, in the sense that the concrete location is understood to be part of the abstract domain only. In these sentences, the concrete location may or may not have a counterpart in the "real world", or in "speaker's reality" (for the term, see Fauconnier 1985). A change in word order cannot change the inclusiveness interpretations of the adverbials (compare example 13 with 14).

- (13) Tässä kirjassa Elmeri asuu Pariisissa.
 This+INE book+INE name live+3SG Paris+INE
 In this book, Elmer lives in Paris'.
- (14) Pariisissa Elmeri asuu "tässä kirjassa. (or: "Pariisissa Elmeri asuu "tässä kirjassa.)

 `It is in this book that Elmer lives in Paris' (or: `It is in Paris that Elmer lives in this book').

Because the adverbial *tässä kirjassa* `in this book' is unbound and refers to a narrative, the concrete locative *Pariisissa* cannot take it under its scope. Example (14) thus does not receive a reading where Elmer would be "living in a book which is in Paris". On the other hand, a bound abstract domain can be under the scope of a concrete spatial location if the concrete entity on which it is conceptually dependent is inside that location. For example:

(15) Kadulla Ari on ajatuksissaan

Street + ADE name be + 3SG thought + PL + INE + 3PSF

karjapaimenena Meksikossa. cowboy + ESS Mexico + INE

In example (15) the locative *kadulla* `in the street' takes the bound abstract locative *ajatuksissaan* `in his thoughts' under its scope. The thoughts are thus understood to be thought by Ari, who is in the street himself. This abstract locative, in turn, takes the other locative *Meksikossa* under its scope, and the Mexico talked about is not the real-world Mexico but its counterpart in Ari's thoughts. The bound abstract locative *ajatuksissaan* is thus under the scope of a spatial locative but also has another spatial locative under its scope. As the Mexico talked about is not the real-world-Mexico, a spatial contradiction between it and the `street' is avoided (i.e. the street does not have to be in Mexico but it can be anywhere; this is simply information that we do not get from the sentence; see also Huumo 1994b).

4. Types of bound domains

4.1. Bound domains expressed with locative-case nouns

The first and probably the most extensive subclass of bound domain markers consists of adverbials expressing a mental or a physical state. In Finnish, these domains are usually expressed with nouns in locative cases, just like physical locations. The metaphorical transition from location to state can be seen as: X is in Y > X is in the state of [doing] Y. As observed above, the occurrence of these adverbials seems to be restricted to the SVX structure only, and the XVS structure makes the sentences either textually marked or ungrammatical, or changes the interpretation of the adverbial in some way.

[`]In the street, Ari is, in his thoughts, a cowboy in Mexico'.

This change in the semantic interpretation of the adverbial may result in a new reading, resembling that of a typical existential clause. The following sections discuss the different ways in which such a semantic change can take place.

4.1.1. Change in inclusiveness relations

One possible way of changing the interpretation of a bound domain into an unbound one is to change the ways in which the inclusiveness relations expressed in a sentence are interpreted. Instead of reporting a bound domain, i.e. a state or a circumstance of an entity, the sentence is now understood so that it indeed introduces a "new" entity into a domain which is unbound with respect to that entity. An example of this change is given in examples (16) vs. (17).

- (16) Lapsi oli unessa.
 Child be+PST+3SG dream/sleep+INE
 `The child was asleep'.
- (17) Unessa oli lapsi.
 Dream/sleep+INE be+PST+3SG child
 `In the dream there was a child'.

Example (16) is a typical bound-domain predication about a particular child, who is asleep (literally, "in a dream"). Example (17), where the word order is XVS, is understood to introduce the (textually new) child into the domain of a dream. Because the domain must be unbound in a proper existential structure, the sentence gets an interpretation where the child is part of the dream, possibly having no counterpart in the "real world".

It is precisely this understood relation between the dream and the child that is crucial for judgements of naturalness in (16) vs. (17). Although a dream is always a bound domain in the sense that it is dependent on *some* concrete entity, this entity is not the

`child' in (17) but the person whose dream the sentence is about. With respect to the child, the dream in (17) is thus unbound.⁶

Although the subject is definite in (16) but indefinite in (17), definiteness alone cannot explain the differences in their interpretation. This is demonstrated by examples (18) and (19), where the subject is a proper name and thus definite in both cases. Despite this, inclusiveness interpretations remain the same as they are in examples (16) and (17):

- (18) Elmeri oli unessa. Name be+PST+3SG dream/sleep+INE `Elmer was asleep'
- (19) Unessa oli Elmeri.

 `In the dream there was Elmer'

 (or: `It was Elmer who was asleep')

These structures thus clearly operate in terms of relational, not referential givenness (Siewierska 1991: 155). It is true that Elmer is supposed to be familiar to the hearer in both examples, but in (18) it is predicated that he is asleep, whereas example (19) talks about the counterpart of the real-world Elmer in the mental space of another person's dream.

The semantic occurrence restriction concerning a bound locative in an initial position may also explain the difference in the degree of acceptability in the pair (20) vs. (21).

- (20) Elmeri / lapsi / uusi ihminen heräsi unesta.
 (Name) / child / new human-being wake-up+PST dream/sleep+ELA
 `Elmer / child / a new human being woke up from the dream'.
- (21) Unesta heräsi ?Elmeri /?lapsi / uusi ihminen.
 Dream/sleep+ELA wake-up+PST Elmer / child / new human-being

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⁶ In fact, it is possible to place both the unbound and the bound domain marker in the same sentence: <u>Unessa lapsi oli unessa</u> [Dream/sleep+INE child be+PST+3SG dream/sleep+INE], In the dream the child was asleep'.

These examples are both reporting a transition: in (20) there is a transition from a (mental) state into another state, in (21) the transition is from one location into another. Example (20) is acceptable with all proposed subject candidates, but example (21) is unnatural with *Elmeri* or *lapsi* as the subject. The reason for this seems to be, again, the "existentiality" of (21). This example can only introduce new referents into the domain of being awake who have "become existent" in the dream. A real-world Elmer or a real-world child are not such entities; to give them such an interpretation would require a highly specific context where "Elmerness" is seen as some kind of a (mental) state of an entity. Neither is it possible for the dream-counterparts of Elmer and the child to move from the dream into the real world. However, with uusi ihminen `a new human being' as the subject, the sentence is more easy to comprehend. It now indicates that a person who has been sleeping has changed in some way (and is like a new human being), and becomes existent, in this new appearance, when changing location from the dream into the "real world".

4.1.2. Reversed locatives

A similar variation in word-order dependent interpretations of inclusiveness can be observed in a subclass of locative sentences where the adverbial denotes an entity which is in spatial contact with the referent of the subject. In these cases the question is not about bound abstract domains which change into unbound ones, but always about elements indicating concrete, physical relations between entities. What varies here is the figure/ground interpretation (see Talmy 1983), which seems to determine the interpretation of these elements as bound or unbound locatives. The boundness is now purely physical but works in a way which is similar to the behavior of abstract bound domains discussed in section 4.1.1.

A typical Finnish locative structure expressing physical contact between the surfaces of two entities, conceptualized as a figure and a ground, takes the figure as the subject and denotes the ground with an adverbial; for example *Piirros on seinässä* drawing be+3sG wall+INE] `The drawing is on the wall'. The drawing here is the figure which is in physical contact with the ground, the surface of the wall.

Reversed locatives introduce an opposite figure/ground relation where the referent of the adverbial is interpreted as being fastened to the referent of the subject, not vice versa. In this sense, these sentences are not locative predications about the referent of the subject; from the point of view of the subject, they rather predicate a state, and can thus be classified as a subtype of bound domain indicators. A change in word order into XVS may, again, result in a new reading where a typical locative relation is asserted. At the same time, the figure/ground interpretations may change.

Examples of reversed locatives with SVX word order are given in (22) and (23):

- (22) Sormi on öljyssä Finger be+3SG oil+INE `The finger has some oil on it'.
- (23) Paita on jauhoissa.
 Shirt be+3sG flour+PL+INE
 `The shirt is dusty with flour'.

With their neutral readings, these examples do not express the location of the finger with respect to the oil or the location of the shirt with respect to the flour (although these readings are also possible for them), but vice versa. The oil is thus actually located on the finger and the flour on the shirt, making it dusty. The finger is in a state of "oiliness", and the shirt in a state of having flour on it, and the adverbials thus indicate bound domains.

The situations indicated in examples (22) and (23) deviate from prototypical locative relations in terms of gravity. In a typical locative construction the referent of the subject is understood to be contained and supported by the referent of the locative, but in examples (22) and (23) the entity expressed with the adverbial is physically supported by the referent of the subject.

If the word order of (22) and (23) is changed into XVS, their interpretation may change, again, into an unbound locative reading; see (24) and (25).

- (24) Öljyssä on sormi. Oil+INE be+3SG finger `In the oil there is a finger'
- (25) Jauhoissa on paita.
 Flour+PL+INE be+3SG shirt
 In the [= a mass of] flour there is a shirt'.

The inclusiveness relations expressed in (24) and (25) differ from those in (22) and (23). This variation resembles the one observed in the previous section, but this time the question is not about abstract domains but concrete physical relations. Example (25) says that the shirt is concretely in some (mass of) flour. The mass of flour is an unbound location, unlike the dust of flour on the shirt in example (22), and independent of the shirt in terms of containment and gravity. It is thus able to function as a domain through which the shirt can be introduced as new information into the discourse. Another interpretation of (24) and (25) is one where they are textually marked variants of (22) and (23); with this

reading, the subjects would have to be emphasized (yielding öljyssä on "sormi and Jauhoissa on "paita).7

4.1.3. Expressions of origin

Another class of bound locatives which deviates slightly from the prototypical cases consists of adverbials expressing origin, as in example (26).

(26) Anselmi on Posiolta.
Name be+3sG Posio+ELA
`Anselmi comes from Posio'.

This construction is syntactically exceptional in that the adverbial is in a directional case expressing a change in location, but the verb is the locative `to be', which usually occurs with static locative expressions. However, example (26) is static in that it expresses Anselmi's home town, and is thus a predication about one of his properties, not about his location.

With XVS order the interpretation changes again so that the sentence is understood to predicate something about Posio (see 27).

(27) Posiolta on Anselmi. From Posio, there's Anselmi'.

XVS reading with no constituents emphasized.

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⁷ Of course, even the existential reading allows for this kind of an emphasis, if the sentence is used simultaneously to introduce the referent of the subject into the location and to cancel a presupposition concerning another entity's occurrence in the location. Thus, for instance, *Jauhoissa on "paita* can be either `It is the shirt that has flour on it' or `In the flour there is a "shirt (not some other entity)'. The point here is that only existentials can get the neutral

Example (27) is not a neutral way of indicating Anselmi's home town (if it is not read contrastively). A more suitable reading would be one where the sentence is actually a predication about Posio, and Anselmi's relation to Posio is relevant information to be predicated about Posio itself. Such a reading would be one where Anselmi represents the town of Posio, for example at a meeting. With this reading, the sentence can be naturally interpreted as an answer to a "multiple question" about places and people representing them (for the term, see Vilkuna 1989: 88-89).

4.1.4. Clothing expressions

Another borderline case between bound and unbound locatives consists of sentences expressing clothing, where a locative-case adverbial is used to indicate the clothes worn by a person; see (28).

(28) Poughkeepsien pormestari oli t-paidassa.
Poughkeepsie+GEN mayor be+PST+3SG t-shirt+INE
`The mayor of Poughkeepsie was in a t-shirt'.

Example (28) uses a locative structure to express the relation between the mayor and the t-shirt. In structures like this, the person wearing the clothes is expressed with the subject (as the figure) and the clothes with a locative adverbial (as the ground), as if the clothes were a place where the person is. In some sense, this interpretation is of course true but if the physical situation of wearing clothes is observed more carefully, it can be seen that this locative interpretation is not so self-evident. In physical terms, it is true that a person wearing clothes is "inside" them in a quite concrete sense. This fact is, however, the only connecting link between clothing expressions and typical locative expressions. In fact, the semantic relations in clothing expressions resemble those of the reversed locatives discussed in section 4.1.2., where it was observed that the entity introduced with the locative adverbial was

physically dependent on the referent of the subject. In terms of gravity, clothing expressions are like reversed locatives: the person wearing the clothes is supporting the clothes and not vice versa.

Even the basic containment relation between clothes and the person wearing them is not as clear as it may look like at the first sight. For example, the t-shirt may well "contain" the mayor in (28), but it is still physically dependent on him in that its actual shape depends on his posture. From the point of view of the mayor, the t-shirt is clearly not a location, and there are good reasons to regard the figure/ground relation expressed in (28) as a reversed one.

The bound domain status of clothing expressions is also manifest in existential XVS constructions. Just like other bound domains, clothing expressions do not easily allow the XVS order, where they are in a position of a "starting point" for the predication:

(29) T-paidassa oli Poughkeepsien "pormestari.
`It was the mayor of Poughkeepsie who was in the T-shirt'.

As example (29) shows, a t-shirt cannot be a "location" used as a starting point of the predication, and therefore the existential reading is not natural. Example (29) can only be analyzed as a textual variant of example (28), with a marked reading. Such a reading arises if it is known that someone in a crowd is wearing a t-shirt, and the sentence is uttered to report that the mayor of Poughkeepsie is exactly that individual.⁸

⁸ If, however, the subject is appropriate, the existential reading may again arise. For example, the sentence *Elvis oli t-paidassa* [Elvis be+PST+3SG t-shirt+INE] is a typical clothing expression, telling that Elvis was wearing a t-shirt, but *T-paidassa oli Elvis* probably tells that the t-shirt had a picture of Elvis on it. In this case, the t-shirt is an unbound domain with respect to the picture of Elvis.

Not all clothing expressions are, however, as unnatural in existential structures. This is due to the conventional function of some pieces of clothing which allows them to occur as a starting point of a predication. An example of this is a costume worn by someone with a special ceremonial role in example (30).

(30) Joulupukinpuvussa on Poughkeepsien pormestari. Santa-Claus-costume+INE be+3sG P.+GEN mayor.

`In the Santa Claus costume there's the mayor of Poughkeepsie'.

According to my intuition, (30) does not receive a similar reading as (29). This is so because the Santa Claus costume represents a conventional function (unlike a t-shirt) and can therefore be used as an unbound domain.

4.1.5. Activity locatives

A subtype of bound domain locatives that has been an object of extensive discussion in the Finnish linguistic tradition consists of nominal locative-case adverbials expressing activities (as opposed to corresponding infinitival expressions which will be discussed in section 4.2.). These activities are understood to affect the referent of the adverbial. Besides expressing the activity, these sentences also imply a state in which the referent of the subject is situated. Examples are given in (31) and (32).

- (31) Tyttö on kalassa.
 Girl be+3sG fish+INE
 The girl is fishing'.
- (32) Mummi on mustikassa. Grandma be+3sG blueberry+INE `Grandma is picking blueberries'.

Literally, these examples indicate that the referent of the subject is "in" the referent of the adverbial, i.e. that the girl is "in fish", or that grandma is "in blueberry", but their actual meaning is that the referent of the subject is performing an activity which affects the referent of the locative. The girl is thus fishing and the grandmother picking blueberries. As the locative relation expressed in (31) and (32) is only implicit and their primary function is to report the involvement of the referent of the subject in an activity, they can be naturally classified as a subtype of bound domain indicators, expressing an activity which is represented linguistically as a state.

Because examples (31) and (32) indicate bound domains, it is to be expected that they do not very naturally fit into the XVS schema. A change in word order thus leads to a textually marked reading.

- (33) Kalassa on "tyttö.
 `It is the girl who is fishing'.
- (34) Mustikassa on "mummi
 `It is grandma who is picking blueberries'.

The relations expressed in examples (33) and (34) do not differ from those expressed in (31) and (32), for pragmatic reasons: it is hard to imagine a situation of finding a girl who is actually in a fish, or a grandmother who is in a blueberry. Therefore the examples are given a textually marked reading.

In cases where the locative reading is not as unnatural as it is in (33) and (34), the inclusiveness relation may indeed change with word order. Thus examples (35) and (36) convey different meanings:

- (35) Elmeri on puhelimessa.
 Name be+3sG telephone+INE
 `Elmer is on the phone [= using the phone]'.
- (36) Puhelimessa on Elmeri Telephone+INE be+3sG name `It is Elmer on the phone [calling us]'.

The semantic information conveyed by (35) is that Elmer is the one who is using a telephone. Example (36), in addition to this, indicates also that Elmer is the one who is calling us (and is thus not physically present). Example (35) resembles examples (33) and (34) in that it reports an activity performed by Elmer [i.e. speaking on the phone]. Example (35) can thus be naturally classified as an instance of expressing activity, and thus a bound domain. In any case, it is not an expression of location, because a purely spatial relation between Elmer and the phone would have to be indicated with the postposition luona `at; in the vicinity of' in Finnish. On the other hand, the XVS order of (36) changes, again, the reading of the adverbial into an unbound one. It reports that Elmer is on the phone, calling us, and is thus introduced into the place of discourse through the domain of being "inside" the phone. From "our" point of view, he is thus actually inside that domain, and therefore the sentence can get the reading of a prototypical existential structure.

4.2. Verbal locatives: infinitival constructions

The discussion on activity domains in section 4.1.5. has brought us close to a more fundamental type of locative expression indicating activity. In Finnish there are structures where an activity is expressed with an infinitival verb form which simultaneously introduces a domain or a location of the subject. From the semantic point of view, these expressions form a continuum which extends from pure locative functions to aspect marker functions (progressive).

4.2.1. Activities as states and domains

The most interesting group of infinitival verb forms in Finnish, from the present point of view, consists of the internal locative case forms of the third infinitive, i.e. the 3rd inf. inessive, elative

and illative. In the Finnish infinitival system, the 3rd infinitive is the one with the most numerous forms. It is marked with a -ma coaffix + a case ending, which is one of the following: inessive (-ssA), elative (-stA), illative (-(h) + VOWEL + n), adessive (-llA), abessive (-ttA) or instructive (-n). Of these case endings, the inessive, elative and illative express locative (or aspectual) meanings. The adessive, which can express place, time, possession, instrument and manner when affixed to a noun, is used in the infinitival inflection only to mark instrumentality and manner, not locative relations. This fact can also be used to explain the lack of ablative and allative forms in the infinitival inflection, because in its instrumental use the adessive is not in opposition with these other external locative cases, as it is in its locative and possessive uses. 9 The 3rd infinitive abessive expresses non-occurrence of an action, and corresponds to the English without + V-ing structure (for instance, sano + ma + tta [say + 3INF + ABE] `without saying'). The 3rd inf. instructive is very rare, and it is used to expressed necessity or obligation in certain archaic nominal constructions.

The 3rd infinitive forms have several semantic functions, the most central ones of which are the circumstantial (locative) and the progressive function (which sometimes corresponds to English progressive forms of the type be + V-ing; see Markkanen 1979). It is not, however, obvious that the function of the 3rd infinitive form as expressing either a location or the progressive aspect can be determined in every instance; rather, these functions seem to form a continuum and not two discrete categories.

Diachronically, the Finnish structure 3rd inf. + locative case is in the process of grammaticalization: its original locative function is being supplemented by a new progressive function. The

⁹ It is also interesting to note that Estonian, which does not productively mark instrumental with the adessive case (but with the comitative), does not have an infinite verb form formally corresponding to the Finnish 3rd inf. adessive, although it has forms corresponding to Finnish 3rd inf. inessive, elative, illative, abessive and instructive.

locative meaning of the structure is still transparent in most contexts, and sometimes it is the primary meaning (see Leino 1991: ch. 6). Hyvärinen (1982: 67) observes that the 3rd inf. inessive structures can often be used spatially as well as temporally.

The development of an infinitive form from a locative to a progressive function is a tendency which has often been observed. For example, Heine *et al.* (1991: 214) state:

In many languages worldwide, locative constructions of the type `Peter is at home' have been used to express verbal aspects, in most cases progressive aspects ("Peter is at/in/on working" > `Peter is working'). [...] Conceptual manipulation in this case has the effect that a spatial proposition serves to conceptualize a "more abstract" notion, that is, a situation that is ascribed a certain temporal contour. [...] The use of the locative construction for a verbal aspect creates a form-meaning asymmetry, at least for some time; since the form "Peter is at/in/on working" is ambiguous, it may mean something like either `Peter is at his place of work' or else `Peter is working'.

An argument put forward by Markkanen (1979: 65) is that the primary meaning of the Finnish 3rd infinitive inessive is still the locative one (see also Leino 1991: ch. 6). Markkanen observes that her examples, repeated here as (37)-(39), can all be answers to *Where is X* type questions (unlike their English counterparts; see also Kangasmaa-Minn 1978: 286-287):

- (37) Äiti on laittamassa päivällistä.

 Mother be+3SG cook+3INF+INE dinner+PAR

 `Mother is cooking dinner'
- (38) Lapset ovat poimimassa marjoja.
 Child+PL be+3PL pick+3INF+INE berry+PL+PAR
 `The children are picking berries'.
- (39) Olin kuuntelemassa musiikkia.

 Be+PST+1SG listen+3INF+INE music+PAR

 `I was listening to music'.

Markkanen argues that "[...] when the speaker utters [37] the listener knows, in addition to the fact that mother is involved in the process of cooking dinner, the additional fact that she is in a place where cooking usually takes place [...] The speaker thus presupposes that there is a place where the activity normally takes place." (Markkanen 1979:65). Markkanen, however, emphasizes that "the idea of location is not necessarily always present" (ibid.), referring to contexts where the 3rd inf. inessive form has the progressive sense.

Markkanen's idea of a conventional place as an explanation for these structures is criticized by Heinämäki (1981: 383-384), who points out that many "activity" verbs (in Vendler's 1967 classification, which Heinämäki uses as the basis of her study) can occur in this construction without an implication of a conventional place. Her example is (40).

(40) Olin ajattelemassa asiaa.
Be+PST+1SG think+3INF+INE matter+PAR
`I was thinking about the matter'.

Heinämäki (1981) abandons Markkanen's locative explanation because it is not applicable to cases like (40) and tries to find other explanations for the structure. She divides verbs into *states*, *activities*, *accomplishments* and *achievements*, and observes that A) state verbs cannot occur in the 3rd inf. inessive construction; B) activity verbs are the most typical verb class in this construction, but not totally productively either; (see example 41); C) accomplishment verbs can occur in the construction; D) achievement verbs can occur in the construction, but their reading is not one of the "progressive" but rather a future, or incipient activity type, see (42).

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(41) ? Liisa on yskimässä.
Liisa be+3sG cough+3INF+INE
(`Liisa is coughing')
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(42) Konsertti on alkamassa.
Concert be+3sG begin+3INF+INE
`The concert is about to begin'.

Heinämäki (1981: 384) observes that although example (41) "cannot be used simply to describe an ongoing activity", it is acceptable if it gets an interpretation where "Liisa has a fit of coughing and goes away to cough in order to get rid of the fit" [emphasis mine]. This observation is interesting, as it involves a locative implication without the conception of a "conventional place". According to my intuition, it is exactly this absence from the place of discourse that is the key to understanding the *olla* `to be' + 3rd inf. inessive construction. Example (41) can be uttered in a context where Liisa is *not* at the place of discourse, to report that a) she is absent, and b) that her absence is due to the cough.¹⁰

Heinämäki (1981) also emphasizes the "purposefulness" of the action indicated in this construction with an activity verb, and argues that this requirement of purposefulness can explain the acceptability of (43) and the unacceptability of (44):

- (43) Serkku on kaatamassa puita.
 Cousin be+3sG fell+3INF+INE tree+PL+PAR
 `[The] cousin is felling [=has gone somewhere to fell] trees'.
- (44) ? Myrsky on kaatamassa puita. Storm be+3sG fell+3INF+INE tree+PL+PAR ? `The storm is felling trees'.

¹⁰ On the other hand, adding a proper loctive expression into the sentence can again change the reading of the 3rd infinitive: *Liisa on täällä/huoneessa yskimässä* [Liisa is here / room+INE cough+3INF+INE] means that Liisa is in a certain place for the purpose of coughing there. The infinitive thus indicates purpose instead of location. We could thus say that the proper locative in this example "supplants" the 3rd infinitive from the function of introducing a place, and therefore the infinitive has to be assigned some other function.

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However, another aspect of the problem is again the locativity implied by the 3rd inf. inessive construction. Example (43) implies that the cousin is absent from the place of discourse, as he is in another place, where he is felling trees. Example (44) is unnatural because reporting the "location" of a storm by indicating an activity is pragmatically odd. On the other hand, example (44) cannot get the incipient activity reading either, because the partitive case of its object assigns it an imperfective aspect; if the aspect is changed into the perfective one (with the accusative case for the object), the sentence becomes more acceptable and gets an incipient activity interpretation (cf. 42), as accomplishment verbs typically do in this construction (see 45).

(45) Myrsky on kaatamassa puun.
Storm be+3sG fell+3INF+INE tree+ACC
`The storm is about to fell the tree'.

From the point of view of Finnish existential structures, the problem of the olla + 3rd inf. inessive construction is, again, one where bound and unbound interpretations of the domain are in conflict. The interpretations of SVX and XVS structures differ from each other exactly as they did in examples with nominal adverbials indicating bound domains. An XVS structure of the structure olla + 3rd inf. inessive seems to require an unbound, in this case, a locative reading where the presence or absence of the conception of a conventional place becomes the decisive factor.

To start with activity verbs, only instances which can be understood as expressions of a location (Markkanen's 1979 "conventional place") seem to occur in the XVS structures, see (46)-(49) vs. (50)-(51).

- (46) Uimassa on naapurin poika. swim+3INF+INE be+3sG neighbor+GEN son
- (47) Selostamassa on Antero Viherkenttä. commentate + 3INF + INE be + 3SG name

(48) Syöttämässä on Lahtinen. pitch+3INF+INE be+3SG name

- (49) Puita kaatamassa on serkkuni. tree+PL+PAR fell+3INF+INE be+3SG cousin+1SGPSF
- (50) Yskimässä on "Liisa. cough+3INF+INE be+3SG name
- (51) Asiaa ajattelemassa on "Pekka. matter+PAR think+3INF+INE be+3SG name

Example (46) is natural if there exists a conventional place or function for swimming (e.g. in a competition), which is at the moment occupied by the neighbor's son. With a change in word order, the interpretation of the infinitive becomes unbound, exactly like that of the nominal adverbials discussed in the preceding sections. In a similar manner, examples (47), (48) and (49) indicate that commentating, pitching (in a game), and felling trees are conventional functions currently occupied by Antero Viherkenttä, Lahtinen and the speaker's cousin, respectively.

Examples (50) and (51) are unnatural, because the infinitives in them cannot so easily be given this reading of a conventional place. Example (50) is odd, because there are no conventional places of coughing where different individuals would cough alternately. We can, of course, invent contexts where such places exist, for example a medical test which involves people going one by one to a specific place in order to cough there. It is interesting that even though the corresponding SVX example (41) was found to be acceptable with the interpretation where Liisa is just absent from the discourse place (as she is coughing in some other place), the XVS structure is not natural with this reading. It indeed requires the conception of a conventional place of coughing. This is due to the fact that an indefinite or "new" entity cannot be introduced into a domain of "being absent" from some place; there has to exist an unbound domain into which the individual is introduced.

4.2.2. The spatial implications of SVX and XVS structures

The observed difference between examples (41) and (50) shows that the implications concerning the place where the activity is performed may be different in different word order structures. Thus (41) indicated simply that Liisa is absent from the place of discourse, but (50) required the conception of a conventional place of coughing. This fact can be further demonstrated with examples where both the SVX and the XVS structures convey the same semantic meaning for the adverbial (e.g. that of a conventional place) but a different implication concerning its spatial relation to the place of discourse. The "absence from the place of discourse" type interpretation (cf. 41) seems to be possible only with SVX order, but the XVS order requires the place of performing the activity to be "accessible", typically visible, to the participants of discourse (cf. 52 with 53).

- (52) Elmeri on puhumassa Name be+3sG talk+3INF+INE `Elmer is speaking [= making a speech]'.
- (53) Puhumassa on "Elmeri `The person speaking now is Elmer'.

Example (52) can imply that Elmer is absent from the place of discourse, e.g. he is in some other place where he is making a speech, or at least that he is not "here" (in a narrow sense) because he is in the speaker's stand ("over there") which may, of course, be part of the "same" larger environment in which the interlocutors are situated. Example (53) can be uttered in a situation where the participants of the discourse are in the "same" place with Elmer, who is the speaker and thus occupies a conventional role. This interpretation where the occupation of a conventional role is asserted, is thus possible for both sentences, but the relational inferences following from them are different:

XVS word order requires the "location" to be *at* the place of the discourse, but the SVX structure implies the opposite.¹¹

4.2.3. Sentences with both infinitival and nominal locatives

In this section I discuss the possibility of introducing other, nominal locatives into sentences with 3rd infinitive forms, and the mutual semantic relations of the domains indicated by them. These interpretations seem to depend on the semantic function of the 3rd inf. inessive form.

The first observation to be made is that the nominal locative typically takes the whole predication under its scope if the 3rd inf. inessive is in the progressive sense, expressing an "ongoing activity"; see example (54), which is understood so that Elmer's meditation takes place in the closet.

(54) Elmeri on meditoimassa komerossa.

Name be+3sG meditate+3INF+INE closet+INE

`Elmer is meditating in the closet'.

With the locative-type interpretation of the infinite form, the relation between it and the nominal locative may be one in which both introduce the "location" of the referent of the subject, but the infinitive reports a bound domain, an activity, and the nominal locative, a place, like in example (55). With the typical incipient activity interpretation of the 3rd inf. inessive of achievement

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¹¹ This variation in point-of-view resembles one that obtains in spatial locative pairs such as *Kissa juoksi puutarhaan* [Cat+NOM run+PST+3SG garden+ILL `The cat ran into the garden' (SVX) vs. *Puutarhaan juoksi kissa* `Into the garden ran a cat' (XVS), where the implications concerning the speaker's vantage point are different. In the SVX variant, the cat is understood to run away from the place of discourse (which is not in the garden), whereas in the XVS variant the cat is introduced as an indefinite entity into the location, thus evoking the reading where the garden is precisely the place of the discourse.

verbs, the interpretation is again such that the locative introduces the scene of the whole (future) event; see (56) and (57)

(55) Elmeri on tanssimassa Tampereella.
Name be+3sG dance+3inF+inE Tampere+ADE
`Elmer is dancing in Tampere'.

(56) Pommi on räjähtämässä Tampereella.

Bomb be+3sG explode+3inf+ine Tampere+ADE

`A bomb is going to explode in Tampere'.

(57) Konsertti on alkamassa Turussa.

Concert be+3sG begin+3inF+ine Turku+ine

`The concert is beginning in Turku'.

In (55), the 3rd inf. inessive form is understood to denote a bound domain but it is equal with the locative domain in that they both answer the question "Where is Elmer", and the sentence indicates that Elmer is spatially in Tampere, where he is involved in the activity of dancing. Example (56), however, is not understood to give two equal predications about the location of a bomb; rather, the adverbial *Tampereella* determines the whole predication *Pommi on räjähtämässä*, which is understood to indicate a future event. The subject, *pommi*, is indefinite. A similar interpretation arises in (57), where the subject refers to a performance, which is spatially dependent on its place of occurrence (in the sense that the concert could not leave Turku and "go" somewhere else¹²).

Interestingly enough, this difference in the semantic interpretation of examples (55) vs. (56)-(57) also has an effect on the constraints on the linear arrangement of the adverbials.

Of course, we have instances like <u>Konsertti on nyt Turussa</u> the concert is now in Turku', which refer to a frequentative activity which is repeated in different locations (i.e. the "same" concert may be in Helsinki tomorrow). Another interpretation is such that the concert is played by an orchestra which is moving through Turku at the same time; thus the "same" ongoing activity is understood to change its location.

Example (55) allows a change in the order of the locatives (see 58), but examples (56) and (57) do not; cf. (59) and (60):

- (58) Elmeri on Tampereella tanssimassa.

 Name be+3sG Tampere+ADE dance+3inF+inE

 `Elmer is in Tampere, dancing'.
- (59) ? Pommi on Tampereella räjähtämässä.

 Bomb be+3sG Tampere+ADE explode+3INF+INE
 ? `The bomb is in Tampere, exploding'.
- (60) ? Konsertti on Turussa alkamassa.

 Concert be+3sG Turku+INE begin+3INF+INE
 ? `The concert is in Turku, beginning'.

Example (58) is natural, and only the information status of the two adverbials is changed with word order. It is more difficult, however, to find a natural context for (59) and (60). Their unnaturalness can be explained with the exceptional interpretations of the infinitives. In (59) and (60), the 3rd inf. inessive form cannot introduce a domain where the referent of the subject is situated. Example (59) is understood so that the bomb has not exploded yet, and the sentence is thus indicating incipient activity. The verb *olla* gets an auxiliary (non-locative) function and the verbal complex as a whole is understood to form a "verb chain" (see Hakulinen and Karlsson 1979). The chain consisting of it and the infinitive cannot be discontinued by other locatives (although certain other types of adverbials may occur in such syntactic positions; cf. Vilkuna 1989: Ch. 5).

The achievement verbs with the incipient activity reading do, however, allow an XVS structure, without any implications of a conventional place or function, see (61) and (62):

(61) Räjähtämässä on "pommi. Explode+3INF+INE be+3SG bomb 'There is a bomb about to explode'.

(62) Alkamassa on uusi yhteenotto.
Start+3INF+INE be+3SG new conflict
`A new conflict is about to begin'.

Example (61) represents the bomb as new information. The interpretation of the infinitive as a locative adverbial does not differ from that in the corresponding SVX structure, and the sentence is understood as indicating a future event.

The mutual order of the infinitive and its object may also restrict the interpretation; see (63) and (64).

- (63) Elmeri on vanhaa puuta kaatamassa.
 Name be+3sG old+PAR tree+PAR fell+3INF+INE
 `Elmer is felling the old tree'.
- (64) ? Myrsky on vanhaa puuta kaatamassa Storm be+3sG old+PAR tree+PAR fell+3INF+INE ? `The storm is felling the old tree'.

Example (64) is unnatural for the same reasons as (59) and (60) are: the object disrupts the chain consisting of *olla* and the 3rd inf. inessive form. This leads into a reading where the 3rd inf. inessive form is understood in its locative and not in the progressive sense, thus indicating that a certain storm is somewhere, felling a particular old tree, which is a pragmatically unnatural reading (cf. also 45). It thus seems to be the case that only the locative reading of the 3rd inf. inessive form allows the placement of the object between the finite verb (`to be') and the infinitive. (Vilkuna 1989: Ch. 5)

5. Conclusions

All the types of bound domain expressions examined in this article differ from typical locative adverbials in the existential-locative structures. The general rule is that the SVX structure allows the bound reading of the adverbial, but the XVS structure is natural only with an unbound reading (if it is not textually marked). If an

SVX structure with an adverbial indicating a bound domain is changed into XVS, its semantic interpretation changes so that the adverbial can be understood to indicate an unbound domain.

Word order thus changes the primary interpretation of the adverbials so that they represent the function which is to be expected in a particular sentence position. This is a typical tendency for other ambiguous adverbials in Finnish as well: they are interpreted as having the semantic function which is the most expected in their sentential position (see also Huumo 1995).

That a locative adverbial of an existential XVS construction is subject to different constraints than its counterpart in an SVX construction is strong evidence for the semantic functions of word order even in a language with free word order such as Finnish. It can also be seen as evidence for the assumption that an initial element in the topic position of a sentence (for the term, see Vilkuna 1989: 37) "opens a file" or "creates a basis" for the rest of the predication (see Givón 1992, Gernsbacher 1990), as well as for the general word order hierarchy according to which elements referring to concrete entities tend to precede elements referring to abstract entities.

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Tuomas Huumo Univ. of Turku Dept. of Finnish Henrikinkatu 3 20500 Turku Finland

E-mail: thuumo@sara.cc.utu.fi