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An Exercise in Cognitive Lexical Semantics: The Case of the Finnish Motion Verb *Kiertää*

Abstract

This paper explores the different usages of Finnish motion verb *kiertää* within the theoretical framework of Cognitive Grammar. First, the different objective motion process types profiled by *kiertää* (as in the sentence *Lentokone kiertää kentän yllä* 'The plane is circling above the field') are analyzed, and then, the different abstract and subjective motion types of *kiertää* based on the objective motion usage (for example, *Tie kiertää pihaan* 'The road bends into the yard') are discussed. The paper shows that the different process types of *kiertää* are not random but semantically well motivated. The paper emphasizes that the (too often neglected) analysis of Path provides an interesting and rewarding viewpoint to the lexical semantics of verbs of motion. The paper also attests that Cognitive Grammar provides solid tools for describing and analyzing the lexical semantics of verbs of motion.

1. Introduction

In this paper, I will discuss the semantics of the Finnish verb of motion *kiertää*¹ within the theoretical framework of Cognitive Grammar. My goal is twofold. According to Seuren (2001: 236), Cognitive Grammar is particularly useful in lexical semantics, and my first goal is to test the relevance of this argument by analyzing one polysemous verb of motion.

My second aim is more practical. Although semantic studies of verbs of motion and typologies based on these studies have been quite popular,

¹ According to the web-based MOT 98 dictionary (provided by Kielikone Oy), *kiertää* can be translated into English, depending on the context, by the verbs *bypass*, *circle*, *circulate*, *circumvent*, *encircle*, *evade*, *fudge*, *get (a)round*, *go (a)round*, *hand (a)round*, *orbit*, *revolve*, *rove*, *skirt*, *surround* or *tour*.

the emphasis of the analysis has usually been on the manner of motion or on whether the motion expressed by the verb is goal-oriented (for example, *arrive*) or source-oriented (for example, *leave*). However, regardless of the importance of the path in the motion event, the path itself has usually gained less attention and remained almost unexplored in the lexical semantics of verbs of motion. Thus, it can be claimed that there is an evident demand for an analysis of the path. My second aim here is to fill in this gap in our knowledge.

The semantic analysis of *kiertää* is especially useful in the pursuit of these two goals for the following reasons.

i) Salience of verbs of motion

Verbs of motion are considered the most prototypical representatives of the entire verb category (Miller–Johnson-Laird 1976: 527, 529–530, 547), and the field of motion verbs has been characterized as an essential area of the lexicon (Diller 1991: 241). Bearing this in mind, it is fruitful to test the capacity of the lexical analysis of any semantic theory by using verbs of motion: a theory should be able to give a sufficient description of precisely these highly essential lexemes in order to serve as an adequate framework.

ii) Polysemy

According to Leino (1994b: 12), Cognitive Grammar has been frequently used to analyze polysemy. Since *kiertää* is a highly polysemous motion verb that profiles a number of distinctive process types, Cognitive Grammar should be able to provide a good analysis of the different senses of this single verb lexeme. *Kiertää* denotes objective, abstract and subjective motion. In this paper, I will illustrate the semantic motivations of the different meanings in the different semantic domains,² and in this sense, I will also test the competence of Cognitive Grammar in such analytic description.

² This study is purely qualitative in nature; for a quantitative description of *kiertää*, see Sivonen 2005.

iii) Indirectness as the marked type of motion

When referring to concrete motion, *kiertää* encodes the Trajector's path (the mover's route in Cognitive Grammar terminology) as indirect when viewed from above in a two-dimensional space. By “indirect” I mean a path that has one or more explicit lateral movements with regard to the main direction of movement. For example, an English verb *outflank*, when referring to concrete motion, profiles a path that involves marked lateral movement compared to straight, rectilinear progression.

It is probably a generally accepted fact that the great majority of verbs of motion in any language do not particularly specify the shape of the path at all (e.g. *go, come, run, walk* etc.), but even in these processes, the path is normally understood as being direct. Thus, it can be argued that the canonical, unmarked way of conceiving of a motion event involves encoding the path as direct rather than indirect. Keeping this in mind, it is worth investigating what kind of semantic features are emphasized when the path is, unexpectedly, indirect.

In this study, I take one verb expressing indirect path, contrast its path to the direct route and consider how this path differs from the direct counterpart. It is no surprise that, in Modern Standard Finnish, there are several other verbs of indirect path that overlap *kiertää* in many respects. For example, the verbs *kaartaa* ‘bend’ and *mutkitella* ‘meander’ share many features with *kiertää*, but as pointed out in Cognitive Grammar (Langacker 1988: 10–11), the verbs are not semantically identical, i.e. “synonymous”, even though they may be used as functional counterparts in certain contexts.

The choice of *kiertää* from among the others alternatives is justified since it is probably the semantically most complicated verb encoding indirect path in Modern Standard Finnish and therefore a good way to illustrate indirect path. In this paper, I will show what the indirect paths expressed by *kiertää* are actually like (or how they are conceived to appear) by taking a closer look at them.

iv) Semantic features related to indirect path

In addition to indirect path, the verbs of indirect path have other semantic features that specify their processes. For example, the verb *kiertää* profiles the moving entity (the Trajector) and the location where, or with respect to which, the movement takes place in its processes (the Landmark). Since

indirectness can be considered the marked type of path, it is worthwhile to find out what other kinds of semantic contributions are related to it. In this study, I will also shed some light on this issue by analyzing the verb *kiertää*.

The examples I used in the analysis came from the database *Language Bank of Finland*, which includes 2 699 tokens of *kiertää* and almost 180 million tokens altogether. My data consists of written (modern) Standard Finnish mostly taken from several newspapers of the 1990's by statistically reliable measures. Occasionally, however, I use my own examples for illustrative reasons.

2. Some basic tools of Cognitive Grammar

Cognitive Grammar is a wide-ranging linguistic theory developed mainly by Ronald W. Langacker³ (for example, 1987, 1988, 1991 and 1999), which emphasizes the role of meaning in linguistic analysis. Cognitive Grammar aims to be a psychologically realistic theory, and it views language as closely related to other human cognitive phenomena. Cognitive Grammar deals with mental representations, while many other modern semantic theories use more formal notation. Cognitive Grammar emphasizes the bond between syntax and semantics and aims to integrate different dimensions of linguistic structure. (Langacker 1987: 42; Leino 1993: 54.)

In this paper, I will make use of some basic concepts of Cognitive Grammar, which are introduced below. In Cognitive Grammar, **the Trajector** refers to the most salient entity in the relational predication (**predication** is a concept used in Cognitive Grammar to refer to the semantic description of a linguistic unit), one of which is a process expressed by a verb of motion. **The Landmark** refers to the second most salient participant in the relational predication. (Langacker 1987: 217.) In a process expressed by a motion verb, the Trajector is prototypically represented by the syntactic subject of the sentence, whereas the Landmark is expressed by the syntactic object (Langacker 1990: 33) or by a valence adverbial (Leino 1993: 85–86; Leino and Onikki 1992: 36).

³ Verbs of motion within a cognitive framework are also discussed by Leonard Talmy (for example 1985 and 2000).

As I see it, the path expressed by a verb is highly relevant in the lexical semantics of verbs of motion. According to Talmy (1975: 181), **the path** can be defined as “the respect in which one object is considered as moving or located to another object” in a motion situation. In other words, the path can be understood as a route on which the Trajector is moving in, into or with respect to the Landmark.

I also make some use of **Basic Conceptual Relations**. These refer to the relation between the Trajector and the Landmark of a relational process. Depending on the amount of space between the Trajector and the Landmark, at least five different Basic Conceptual Relations can be distinguished: SEPARATION, INCLUSION, IDENTITY, CONTACT and ASSOCIATION. In SEPARATION, there is some space between the location of the Trajector and the Landmark, whereas in INCLUSION, the Trajector is situated inside the Landmark. In CONTACT, the Trajector and the Landmark have one common intersection, and IDENTITY refers to a situation where the Trajector and the Landmark are identical with respect to their comparable parts. ASSOCIATION is a conceptual relation where, besides the Trajector and the Landmark, there is a third, usually functional, participant involved in the interaction of the state of affairs. (Langacker 1987: 225–230; Lakoff 1987: 420.)

The processes expressed by verbs of motion are usually divided into three subtypes in Cognitive Grammar. These three motion types include objective, abstract and subjective motion. **Objective motion** refers to a state of affairs where some entity changes its location in the external world (for example, *A plane was circling above the field*). Thus, objective motion refers to a type of motion that is intuitively understood as motion, and it can also be called “concrete motion”.

In **abstract motion**, verbs of motion are used, but no actual moving entity can be observed in the state of affairs referred to by the sentence. This kind of motion verb usage is often called “metaphorical” or “figurative”. For example, a sentence *A nasty rumor was circulating in the office* may be characterized as a abstract motion. In this case, the content of the rumor is conceived of as moving from one speaker to another even though there is no visible moving entity involved. It is precisely the subjective or virtual conceptualization of movement that motivates the usage of motion verb in this kind of occurrence.

Subjective motion (also “fictive motion”, “virtual motion”) can be considered a subtype of abstract motion, but since it denotes a

distinguishable type, it is reasonable to consider subjective motion a unique type of motion. In subjective motion, as in the sentence *The fence zigzags from the door to the field*, the verb of motion is used to refer to the physical shape of an external entity. Subjective motion is based on a dynamic, abstract sort of interaction between the conceptualizing observer and the location referred to. In the process of subjective motion, the observer mentally “follows” the shape of the Trajector’s referent from one end to the other and conceptualizes its shape as a motion event. For example, in the subjective motion of *kiertää*, the conceptualizing observer follows mentally the shape of the Landmark’s referent and finds its shape similar to the path of a Trajector in the objective motion usage of *kiertää*. Thus, the similarity of the Trajector’s path in the objective motion compared to the shape of the Trajector’s referent motivates the use of the same verb lexeme. (Different types of motion are discussed in detail by Langacker 1987: 170–173, 1990: 157–160 and Talmy 2000: 99–175.)

3. Cognitive Lexical Semantic of *kiertää*

According to the Finnish Etymological Dictionary, the verb *kiertää* has the same root as the adjective *kiero* ‘indirect, wrong, twisted’ (SSA 1992: s.v. *kiertää*). These semantic features are also involved in the processes expressed by *kiertää*. The verb *kiertää* includes a derivative affix *tä*, which refers to factivity, meaning the making of what the stem expresses (Hakulinen 1979: 288). In the process profiled by *kiertää*, this can be understood as a making of a certain type of twisted path.

Before going into details, it is important to clarify my starting-point for lexical verb semantics. I presume that a polysemous verb itself is the key element to this kind of linguistic description. The verb has an ability to profile a limited set of process types (Langacker 1999: 23, 271), and one of these is normally elaborated in the actual usage of the verb. Thus, neither tense, Aktionsart, the transitivity–intransitivity dichotomy, the verb’s argument structure (e.g. its argument’s cases, word classes, etc.) nor any other formal feature will explain exhaustively any particular meaning of the verb. On the contrary, I believe things are the other way around. A verb lexeme profiles a process type or, in a polysemous case, a number of process types that have several specifications regarding suitable argument

structure, Aktionsart, transitivity–intransitivity, etc.⁴ Consider the example sentence 1 (my own).

- (1) *Nykyisin Pekka kiertää baareja.*
 Nowadays Pekka-nom circle⁵-3.sg bar-pl-part
 'Nowadays Pekka never goes into bars, avoids bars.'
 'Nowadays Pekka keeps going from one bar to another.'

The sentence 1 has two explicit interpretations, and only what we know about Pekka can tell us whether he never goes into bars or perhaps goes there too often. In other words, there is no formal marker, such as a morpheme, which could determine the reading, but the interpretation is done on the basis of encyclopedic knowledge. Naturally, not all process types profiled by *kiertää* are similar to example 1, and some of them can be distinguished by formal features. The transitivity–intransitivity dichotomy, the case and the category of the Landmark (locative adverbial or object) in addition to the encyclopedic knowledge implicit in the verb's arguments characterize some process types profiled by *kiertää*.

3.1 Objective motion

In the objective motion profiled by *kiertää*, four different processes can be distinguished based on the path's shape and the nature of the Conceptual Relation between the Trajector and the Landmark. Below, I discuss these in detail.

3.1.1 'Moving inside the Landmark'

The basic process type in the objective motion of *kiertää* is one where the Trajector is moving inside the Landmark (2 and 3). These processes are inherently imperfective, and the conceptual relation between the Trajector and the Landmark is INCLUSION during these processes. There are two

⁴ However, this is a difficult theoretical dilemma that cannot possibly be answered in this paper. Basically, it is a question of whether to choose a verb lexeme or a larger construction to be the starting point of the linguistic description.

⁵ In the glosses, I will use systematically the English verb *circle* for Finnish *kiertää* because I assume its stem to be the closest to the Finnish stem *kier*. In the translations, I will try to interpret the particular sense of *kiertää* into English as well as possible by using different English verbs.

subtypes of these processes, intransitive and transitive. In the intransitive type, the Landmark is represented by a syntactic adverbial, usually in internal local cases, as the inessive in sentence 2 (*Lapissa*). The Landmark of a transitive process is an object (3: *Lappia*), which shows the normal variation of the Finnish object case between accusative (actually expressed by nominative or genitive) and partitive.

- (2) *Kesällä kierrämme Lapissa.*
 summer-adess circle-1.pl Lapland-iness
 'During the summer, we travel around Lapland.'
- (3) *Talvella kierrämme Lappia.*
 winter-adess circle-1.pl Lapland-part
 'During the winter, we tour in Lapland.'

It is important to notice that the encyclopedic knowledge implicit in the Landmark plays an important role when defining the process type in question. For example, in sentence 3, what we know about the object *Lappia* (Lapland-part 'in Lapland') defines the usage of *kiertää* in this context and makes it different from the process type described later in section 3.1.2. (compare to example 10). This also illustrates why mere formal criteria are not sufficient to define the process type of *kiertää*. But this is also true the other way around: you cannot take a certain Path or process type expressed by *kiertää* and then define the formal syntactic context in which it must occur.

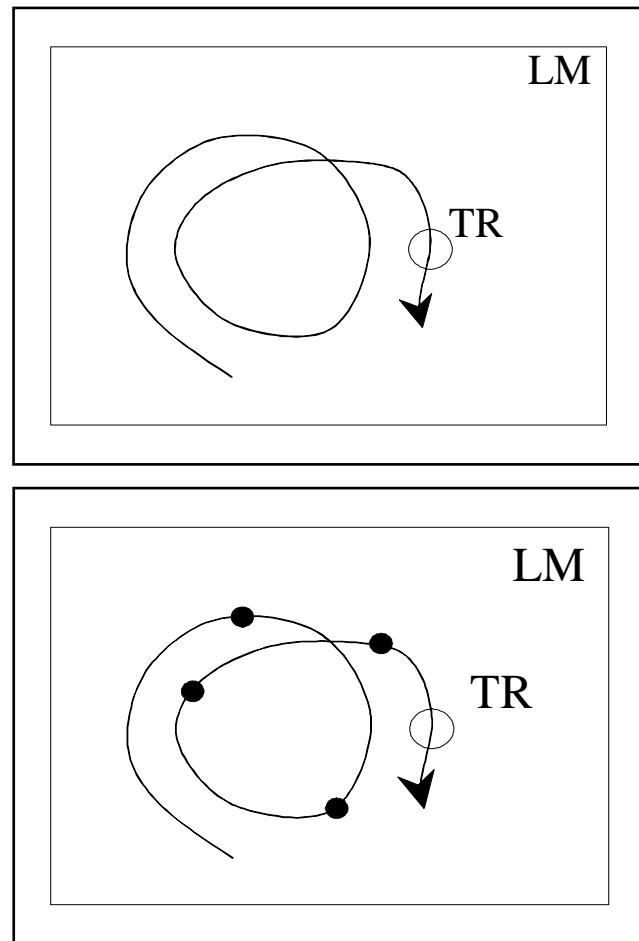
One basic assumption in Cognitive Grammar is that different syntactic constructions are not semantically identical, although they can be used as functional counterparts (Langacker 1988: 10–11). Bearing this in mind, it can be argued that the examples 2 and 3 both mean that the Trajector moves in the Landmark through an indirect path of a certain shape, but since the Landmark is represented by an adverbial modifier in the former sentence and by an object in the latter, the sentences are likely to involve at least some semantic difference.

A non-controversial explanation of this semantic difference would be to say that, in the transitive sentence, the Landmark is conceived more as a target of the motion action similarly to a prototypical transitive sentence (for example *A boy reads a book*). Thus, the transitive construction of the motion verb *kiertää* is schematically similar to the prototypical transitive verb's process. In this sense, even with a motion verb, the object represents

the Landmark as some sort of target of the action expressed by the verb, whereas the locative adverbial profiles the Landmark more explicitly as a location. In the transitive construction, the object's case variation can therefore be used to express the state of motion as either imperfective with the partial object case partitive or perfective with the total object case (genitive-accusative or nominative-accusative).

However, it seems to me that this formal variation of the Landmark's case may have another semantic contribution as well. My suggestion is that the way the path is conceptualized plays an important role in this semantic disparity. Prototypically, in this type of intransitive use of *kiertää* (2), the path is conceived of as inherently uniform in quality, whereas the transitive construction (3) places some salient stages, certain intermediate stopping points into the path, which are highlighted.

Figure 1 demonstrates these two different interpretations. The Trajector's path in the (prototypically) intransitive construction (a) has no dots, while the salient stopping points are marked with black dots in the (prototypically) transitive construction (b). In the figures, the circle stands for the Trajector, the square for the Landmark and the arrow line for the path.



Figures 1a and 1b. The path expressed by *kiertää* in the intransitive construction (a) and in the transitive construction (b) when the Trajector is moving inside the Landmark.

The existence of such intermediate stopping points can be supported by a simple syntactic test, a kind of minimal pair. For example, the sentence *Kotisairaanhoidajan työssä saa kiertää kaupunkia ~ 'kaupungilla* (visiting nurse-gen work-iness get-3.sg circle-1.inf city-part ~ city-adess) 'As a visiting nurse one gets to circulate in the city', where the Landmark represented by an object (in a partitive case: *kaupunkia*) is fully acceptable, while its counterpart with a syntactic adverbial (in an adessive case: *kaupungilla*) may sound odd to a native speaker. This is due to the fact that the transitive construction of *kiertää* implies the presence of stopping points, while the intransitive sentence indicates their absence, which makes the intransitive construction semantically defective with regard to the speaker's encyclopedic knowledge of a visiting nurse's job description.

However, the presence or absence of stopping points in the Trajector's path does not depend merely on the syntactic type of the sentence and the Landmark's representative. It should be emphasized that syntactic means can be used both to create salient stages, e.g. stopping points, into the path of an intransitive construction and to eliminate them from the transitive construction. In the intransitive example in sentence 4, the idea of stopping points is due to a plural affix in the Landmark, which brings about the impression of intermediate stopping points. In the transitive sentence 5, on the other hand, the impression of an inherently uninterrupted path with no stopping points is based on the adverbial phrase idiom *ristiin rastiin* 'through the length and breadth of'.

- (4) *Ryhmä kiertää Oulun yläasteilla.*
 team-nom circle-3.sg Oulu-gen junior high school-pl-adess
 'The team visits junior high schools of Oulu.'

- (5) *Kierrämme maailmaa ristiin rastiin.*
 circle-1.pl world-part cross-illat tick-illat
 'We travel through the length and breadth of the world.'

Interestingly enough, Finnish and English seem to have different ways of encoding salient stages into the path. Whereas Finnish uses case variation of the Landmark, English uses lexical means. According to the New Oxford Dictionary of English (s.v. *roam, tour*), for example, the verb *roam* means 'move about or travel aimlessly or unsystematically, especially over a wide area - - - without stopping - - - without dwelling on anything in particular', and the verb *tour* is explained as 'to make a tour (= a journey for pleasure in which several places are visited / to view or inspect something)'. To my knowledge, there are no corresponding motion verbs in Standard Finnish, but a similar semantic difference can be implied by the case variation of the Landmark of the verb *kiertää* as shown here.

An interesting addition to the semantics of the verb *kiertää* in its objective motion usage is provided by transitive constructions with a total, nominative-accusative object in plural (6 and 7).

- (6) *Kierrämme pohjoisen kunnat*
 circle-1.pl northern-gen municipality-pl-nom-acc
kertomassa lainsäädännöstä.
 tell-3.inf-iness legislation-elat
 'We will visit all the northern municipalities telling about the legislation.'
- (7) *Yhdessä kierrettiin lääkärin ja hoidot.*
 together circle-pass-imperf doctor-pl-nom-acc and treatment-pl-nom-acc
 'Together we tried all doctors and treatments.'

The sentences 6 and 7 suggest that all entities included in the Landmark are in the scope of the predication, e.g. all municipalities (6) or doctors (7) were visited. This type of motion verb usage is parallel to the “normal” transitive verb use, where the total object in plural nominative-accusative implies that all of the object’s referents are encompassed in the process expressed by the verb, as in the sentence *Pekka luki kirjat* (Pekka read-3.sg-imperf book-pl-nom-acc ‘Pekka read all the books’), the object (*kirjat*) case nominative-accusative implies that he read all the books that were available in that particular situation (Hakulinen–Karlsson 1979: 185; Heinämäki 1994: 225). The most interesting cases, however, are the ones like sentence 7, where, because there are countless real-world doctors and treatments that simply cannot all be visited, this way of conceptualizing the path (and the state of affairs) is actually subjective.

The motivation for such subjectively conceptualized use of a path with salient stages is probably pragmatic: it provides a possibility to exaggerate⁶ and to create a dramatic, appraising impression (see Yli-Vakkuri 1986: 259–261). If a person visits *all doctors* and tries *all treatments*, it makes the point more effectively than visiting *some doctors* and using *some treatments*, which was probably what happened.

In transitive constructions of *kiertää*, not only is the path saliently elaborated but the Trajector also has some semantic specifications. In transitive sentences, the Trajector appears to have planned in more detail the path in advance. This is most clearly shown in sentences that refer to future action, as in examples 8 and 9 (number 8 is an authentic example taken from newspaper Kaleva 21.8.2001), even though reference to the future is not necessary.

⁶ Vilkuna (1992: 51) even calls comparable subjective case usage “legal exaggeration”.

- (8) *Lomallaan presidentti Putin kiertää Karjalaa.*
 holiday-adess-3.sg-px president-nom Putin circle-3.sg Karelia-part
 'During his holidays, president Putin will tour around Karelia.'
- (9) *Lomallaan presidentti Putin kiertää Karjalassa.*
 holiday-adess-3.sg-px president-nom Putin circle-3.sg Karelia-iness
 'During his holidays, president Putin will tour around in Karelia.'

In example 8, where the Landmark is represented by an object (partitive case), the path is conceptualized as well-thought-out beforehand compared to the expression with an adverbial (inessive case). The intransitive sentence 9 may even sound strange to the ears of a native speaker. This is due to the fact what we know about the president's holiday journeys: they are well-planned and scheduled beforehand, but the intransitive construction of *kiertää* implies the opposite, which may cause some confusion to the reader of the sentence.

3.1.2 Circumferential Path

In the second objective motion process type expressed by *kiertää*, the Trajector moves on a path of a special shape. The sentences 10 and 11 are examples of this process type.

- (10) *Kierrän kaappia ja tutkin sitä.*
 circle-1.sg closet-part and inspect-1.sg it-part
 'I go around the closet and inspect it.'
- (11) *Lapsi kiertää puun ympärillä.*
 child-nom circle-3.sg tree-gen around-adess
 'A child is running around the tree.'

A path of this kind can be characterized as circumferential. Svorou (1994: 152) defines **circumferential path** as an instance where the Landmark is treated as a spherical object, either because of its shape or because of the path that is followed by a moving entity that starts from a specific point and moves along the boundaries of the Landmark till it reaches the same starting point.

The Landmark of this process may refer to an artifact represented by a syntactic object, around which the Trajector moves (10). It is also possible

that the Landmark is expressed by a valence adverbial construction, which typically consists of a noun in genitive accompanied by a p-position *ympärillä* 'around', which profiles the path and process type in question (11). Thus, this process type can be expressed both by transitive and intransitive constructions, and the form of the Landmark varies accordingly. The encyclopedic knowledge associated with the Landmark has a vital role in the determination of the process type and, thereby, in the interpretation of the whole sentence (compare to sentence 3).

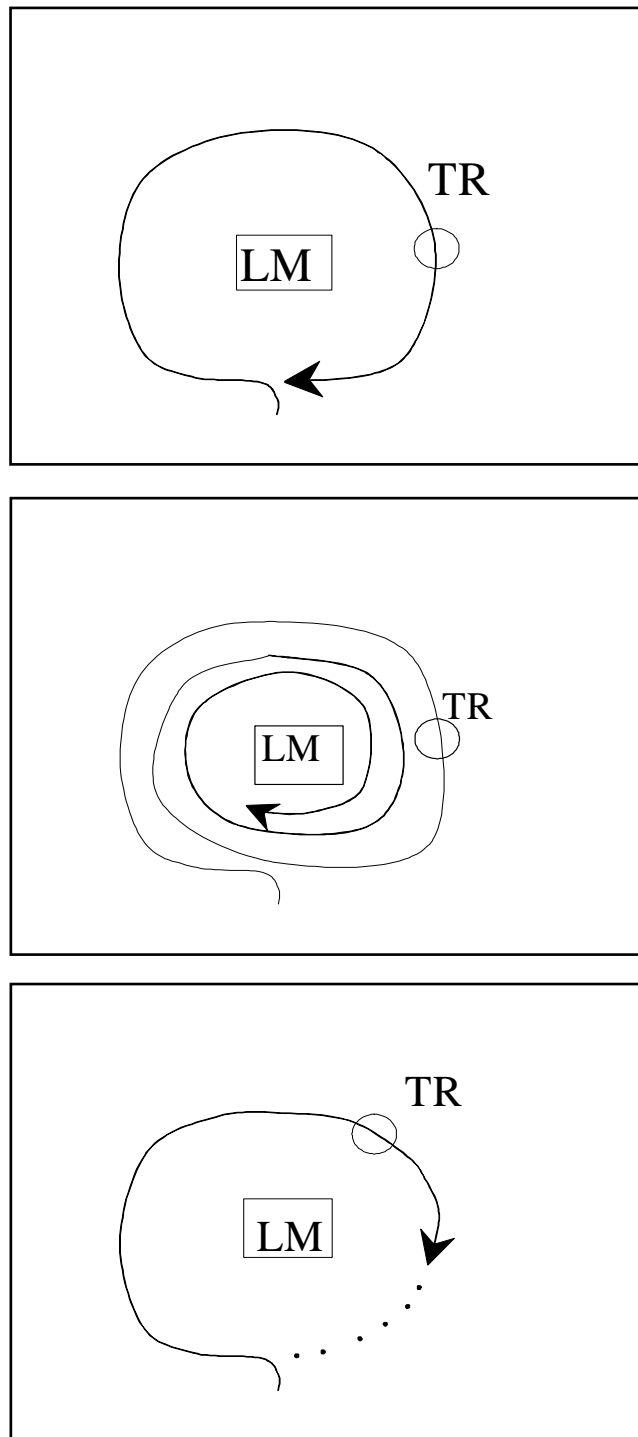
It must be emphasized that the shape of the path profiled by *kiertää* in this process type may be similar to the shape profiled by a verb in the first group (illustrated in section 3.1.1). The semantic difference between these two process types lies in the conceptual basic relation between the Trajector and the Landmark. When the Trajector is moving inside the Landmark, the relation can be characterized as INCLUSION, but in the process type illustrated here, this relation is rather SEPARATION or CONTACT.

The circumferential usage of *kiertää* can be divided into several subtypes. First of all, the Trajector can move around the Landmark, as we saw in the examples 10 and 11. If we go into details, this subtype can profile three shapes of path with differential syntactic representations and semantic readings. The example sentences 12 and 13 illustrate these types.

- (12) *Kirkko kierrettiin pyhää*
 church-nom-acc circle-pass-imperf holy-part
vettä heittäen.
 water-part throw-2.inf-instr
 'The church was circled once by people throwing holy water.'

- (13) *Kirkkoa kierrettiin pyhää vettä heittäen.*
 church-part circle-pass-imperf holy-part water-part throw-2.inf-instr
 'There were people going round and round the church and throwing holy water.'
 'There were people in the process of going around the church and throwing holy water.'

If the Trajector moves only one round (see Figure 2a), this is expressed by a nominative object (12). The sentence has a bounded, perfective reading. If the object is in the partitive case (13), there are two possible readings: the Trajector either moves several circles (Figure 2b) or is halfway through the first round, but not yet finished with it (Figure 2c: the dotted line stands for the unfinished part of the path). The latter two cases have unbounded, imperfective readings. Figure 2 illustrates the different paths.



Figures 2a, 2b and 2c. Circumferential use of *kiertää*. Perfective (a), imperfective 'many rounds' (b) and imperfective 'part of one round' (c) path.

In the examples 14 and 15, the Trajector is not moving around an entity, but rather along a manmade track. Because the shape of the path is, nevertheless, similar to the previous ones, these paths can also be characterized as circumferential paths. It is typical of these paths that the starting and ending points of the track are at the same real-world location, as in the track of a stadium. However, *kiertää* can also be used in the same sense to refer to a situation where the starting point is not even close to the ending location. This is typical of paths representing nature trails (14) and certain sport events, such as the routes in a car race (15).

- (14) *Kuhasalon luontopolku on kierretty*
 Kuhasalo-gen nature trail-nom-acc is-3.sg circle-pass-1.partic-nom
kymmenen kertaa.
 ten-nom time-part
 'The Kuhasalo nature trail has been walked ten times.'

- (15) *Grönholm kiersi 3 kilometrin radan*
 Grönholm-nom circle-3.sg-imperf 3 kilometer-gen track-gen-acc
toiseksi nopeimmin.
 second-transl fast-sup-cl
 'Grönholm raced the 3 kilometer track the second fastest.'

The motivation for this kind of use of *kiertää* is probably the way the Trajector's state is conceived of. The similarity to a track that starts and ends at the same location lies in the fact that, in both cases, the Trajector is no longer "on the path" when it has stopped moving. For example, when the car in a race crosses the finish line, the race is over, and the car in a way returns to its initial condition or state of affairs, even though there is no actual physical entry to the starting point at the end of the motion process. In Cognitive Grammar, this may be characterized as a change from one cognitive dominion, a "conceptual region to which a particular reference point affords direct access" (discussed in detail in Langacker 1993), to another.

3.1.3 'Moving to avoid the Landmark'

The sentences 16 and 17 are examples of the third objective motion process type expressed by *kiertää*.

- (16) *Kierrä* *haaskat,* *koska*
 circle-2.sg-imperat carcass-pl-nom-acc since
karhu *on* *todennäköisesti* *lähellä.*
 bear-nom is-3.sg probably nearby
 'Avoid the carcasses, since the bear is probably nearby.'

- (17) *Kierrämme* *aidan* *ja* *astelemme* *ovelle.*
 circle-1.pl fence-gen-acc and pace-1.pl door-allat
 'We will go past the fence and walk towards the door.'

In this process type, the Trajector tries to avoid CONTACT with the Landmark. Therefore, the Landmark is conceptualized as a BARRIER, an entity to be avoided (for BARRIER, see for example Rudzka-Ostyn (1988: 523)). The BARRIER is located in the Trajector's original direction of movement, and in order to avoid CONTACT with it, the Trajector needs to take some steps to the side.

It is worth noticing that *kiertää* profiles only lateral movement of avoidance, but does not specify whether the Trajector passes the Landmark on the right or the left hand side, nor does it specify how far from the Landmark the Trajector moves. Having passed the BARRIER, the Trajector usually returns to its original route, but this part of the motion is not profiled in the process of *kiertää*, but rather by another motion verb, as the verb *astella* 'pace' in the example 17 shows. The dotted line in Figure 3 stands for the Trajector's initial path.

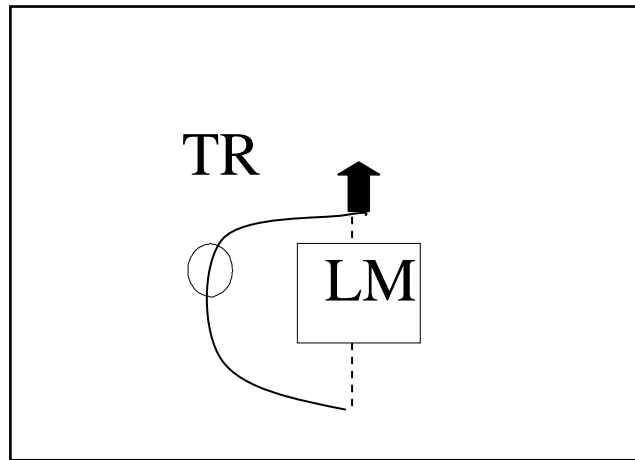


Figure 3. The process of *kiertää* where the Trajector is avoiding CONTACT with the Landmark.

This process type is transitive, and the Landmark is represented by a syntactic object, which has normal case variation that can be used to express aspectual variation. In example 16, the information about a bear being close in the latter sentence guides the interpretation of the first sentence: the verb *kiertää* has here the meaning of avoidance of the entity expressed in the Landmark. The encyclopedic knowledge associated with the Landmark may also have a crucial effect when deciding about the process type. Thus, what is generally known about fences in example 17 (they cannot be walked through) guides the interpretation of this sentence and makes it different from, for example, the sentences 6 and 15.

3.1.4 'Moving into the Landmark'

The final, fourth, objective motion process type profiled by *kiertää* refers to a motion where the Trajector moves into the location expressed by the Landmark (18). However, *kiertää* does not specify precisely the entrance point of the Landmark, but only the fact that the Trajector goes into the Landmark. Figure 4 illustrates the path.

- (18) *Kierrän lammen päätyyn.*
 circle-1.sg pond-gen end-illat
 'I will walk around to the end of the pond.'

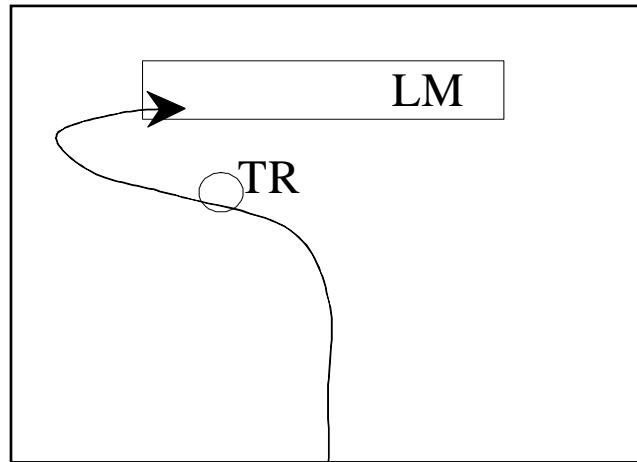


Figure 4. The Trajector's path expressed by *kiertää* in a process of entering the Landmark.

This process type is intransitive by nature. From the point of view of conceptual relations, it can be said that, in this inherently bounded, perfective process, the Trajector moves from SEPARATION to INCLUSION (or sometimes CONTACT) with respect to the Landmark. This is why the Landmark is represented in this process type by an adverbial modifier in an illative or allative case, which are called “movement towards” cases by Karlsson (1987: 99). In the state of affairs referred to by *kiertää* in this process type, there is a BARRIER involved that prevents the Trajector from proceeding along a straight route. However, the BARRIER is not necessarily shown explicitly in the sentence but its presence can be inferred. In the example sentence 18, the BARRIER is represented by a lake, which cannot be walked through but has to be bypassed.

3.2 Abstract motion

It is a generally accepted view that the direction of semantic change is usually from concrete to abstract (Leino 1993: 153). In this respect, *kiertää* makes no exception. On the contrary, all abstract usages of *kiertää* can be seen as semantic extensions of some type of objective motion. In other words, the figurative usage of *kiertää* is semantically motivated by the concrete usage of the verb.

In the following Figure 5, I give a general view of the polysemy of *kiertää*. The figure shows a schematic presentation of the objective motion process types expressed by *kiertää* discussed earlier in this paper.

Moreover, the figure illustrates the semantic motivations of the different abstract senses of *kiertää* that will be discussed in detail below. In other words, Figure 5 shows how the abstract usage of *kiertää* is based the objective senses of the verb. The arrow stands for the assumed semantic extension and points to the direction of the semantic motivation of the different senses of *kiertää*.

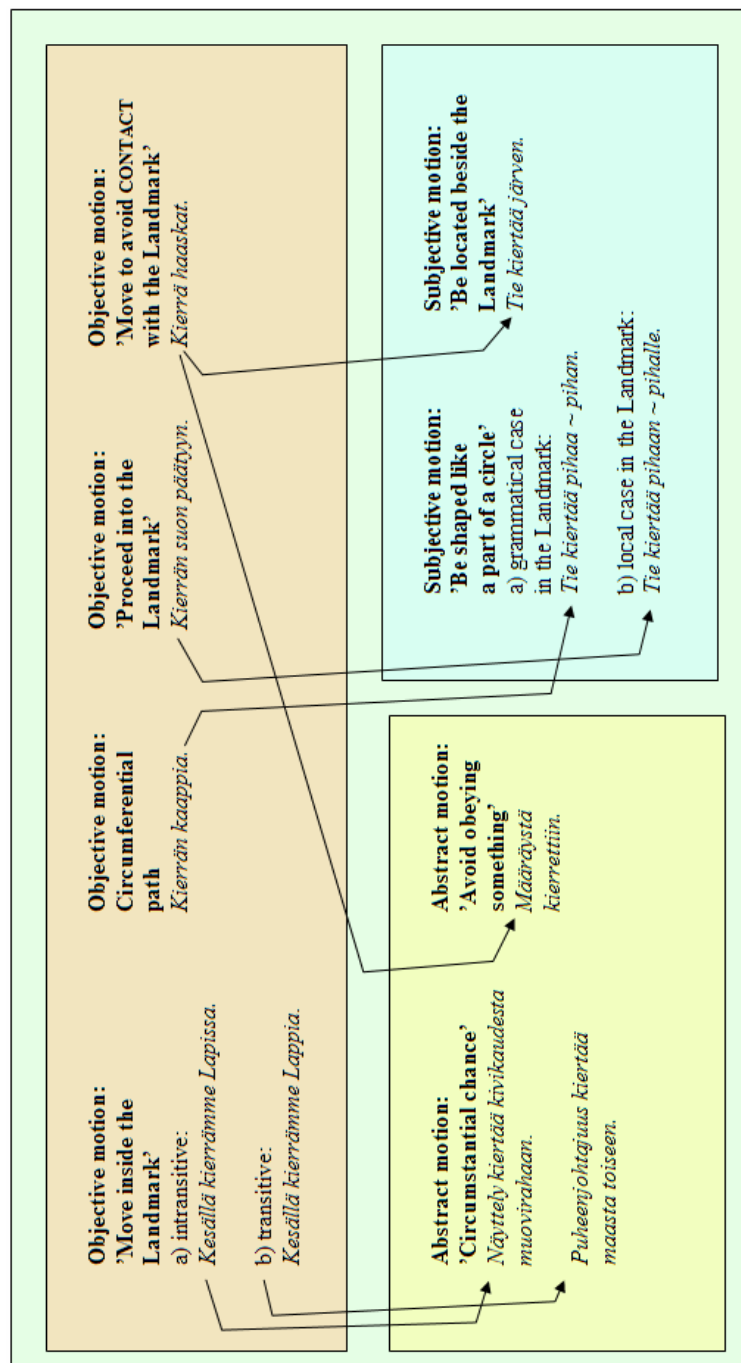


Figure 5. Different process types expressed by Finnish *kiertää* and their semantic connections.

3.2.1 'Avoiding to do something'

In the first abstract motion process type of *kiertää*, the Trajector is avoiding to do something. The avoidable thing can be, for instance, the need to obey the law or some regulation (19) or a certain topic in a speech act (20). This process type is transitive, and the Landmark is represented by an object, which shows normal aspectual case variation. The reader's encyclopedic knowledge of the Landmark guides the interpretation of the sentence. Thus, for example, in the sentences 19 and 20, the objects *määräys* 'regulation' and *totuus* 'truth' determine the process type in question. Since they are abstract entities, the motion must be abstract rather than objective, and, moreover, the specific process type in question, 'Avoiding to do something', is due to the information related to the Landmarks.

(19) *Määräystä kierrettiin eri tavoin.*
 regulation-part circle-pass-imperf different way-instr
 'The regulation was evaded in different ways.'

(20) *Kiertäisin totuutta, jos sanoisin näin.*
 circle-1.sg-cond truth-part if say-1.sg-cond this
 'I would be fudging the truth if I said this.'

It is easy to see that such figurative usage of *kiertää* is based on the objective motion where the Trajector tries to avoid CONTACT with the Landmark (3.1.3.). The Landmark is here conceived of as a BARRIER, and the action taken by the Trajector is to mentally avoid CONTACT with it, just as the Trajector avoids touching the Landmark concretely in the corresponding object motion usage.

3.2.2 'Circumstantial chance'

The other abstract motion processes profiled by *kiertää* can be called circumstantial chance (even though they involve many kinds of usage), and they can be divided into two relatively distinct subtypes. Both transitive and intransitive sentences occur in these processes, and the Landmark can therefore be represented by an adverbial or an object. The adverbial can be a compounding construction, which consists of a pair of adverbials in different local cases expressing the starting and ending points or some

intermediate phase of the virtual movement process (21 and 22), or it can be in internal local case (inessive or adessive, see example 24).

(21) *Puheenjohtajuus kiertää maalta toiselle.*
 chairmanship-nom circle-3.sg country-ablat other-allat
 'Chairmanship rotates from one country to another.'

(22) *Näyttely kiertää kivikaudesta muovirahaan.*
 exhibition-nom circle-3.sg Stone Age-elat plastic money-illat
 'The exhibition consists of items from the Stone Age to plastic (money).'

It is mostly the encyclopedic knowledge associated with Trajector's representative, which determines the process type. In this process type, the Trajector refers to some abstract entity, whose virtual location is conceived of as moving. In the first case, the Trajector, in a sense, abstractly moves, acts or appears iteratively in the location expressed by the Landmark. One elaboration of this process type is example 21, where the chairmanship of a certain organization is rotated from one country to another. The second type refers to a process where the Trajector's profile is conceptualized as changing steadily without any clear intermediate stopping points; in the state of affairs referred to by sentence 22, the items of the exhibition are from different eras.

The semantic difference between these two process types lies in the existence of salient stopping points. Example 21 profiles a process where the holder of chairmanship is a certain country for some time, followed by another country. Because these countries are located all over Europe in the real world, the changing (similarly to the change of the Trajector's location of the in objective motion) of the host country is conceptualized as a movement along a path from one salient stage to another.⁷ Thus, the host countries are conceptualized as the salient stages in the path expressed by *kiertää* (compare to example 3), which motivates the usage of this particular verb in this context. In sentence 22, however, there are no salient intermediate points profiled in the path. The sentence is metonymical in nature, and can be interpreted to mean that the exhibits (rather than the exhibition itself) are from different eras. The variation of these exhibits is

⁷ Because this example does not actually refer to the shape or form of the real-world Trajector, but rather denotes the quality of chairmanship, I categorize it as an example of abstract rather than subjective motion.

conceived of as subjective movement: the items are conceptualized as moving entities and the implicit visitor as immobile. In reality, however, things happen the other way around.

What about the semantic difference in such examples as 23 and 24, which also profile the abstract motion of *kiertää*.

(23) *Ajatukseni kiertävät sinua.*
 thought-pl-nom-px circle-3.pl you-part
 'My thoughts are encircling you.'

(24) *Ajatukseni kiertävät sinussa.*
 thought-pl-nom-px circle-3.pl you-iness
 'My thoughts are encircling you with great intensity.'

If similar variation between the partitive and the inessive cases in the Landmark causes the implication of planning in the objective motion of *kiertää* (see examples 8 and 9), what is its influence on abstract motion (23 and 24)? The answer probably lies in the intensity of the process. In 23, the partitive Landmark profiles an iterative thinking process and seems to imply the possibility of thinking about something else every now and then, whereas in 24, the inessive case Landmark guides the reader to perceive the state of affairs as more intensive. This semantic phenomenon is based on the fact that the Finnish grammatical cases, such as partitive, profile an entity, whereas the local cases, such as inessive, profile an atemporal relation (see Leino 1994a: 209–210, 213–214). In the abstract motion usage of *kiertää*, this means that partitive creates the impression that thinking has a target, but this target does not necessarily need to be attained all the time. Inessive in the Landmark, on the contrary, profiles a setting of abstract motion and therefore implies incessant thinking of the target.

An additional interesting point is the fact that, if the Landmark is expressed by a total object case (accusative) in this sentence, *Ajatukseni kiertävät sinut* (thought-pl-nom-px circle-3.pl you-acc), the interpretation is 'My thoughts are bypassing you completely', 'I am not giving you any thought at all'.

3.3 Subjective motion

The subjective motion usage of *kiertää* is based on a mental conceptualization where the different paths of objective motion play an

important role. Even though subjective conceptualization can also be involved in other kinds of usage of *kiertää* (as examples 21 and 22), I have categorized as subjective motion only the cases where the motion verb is used to refer to the Trajector's concrete occurrence, its shape in the real world. The prototypical cases are shown in the sentences 25 and 26.

(25) *Maratonreitti kiersi järven rantaa.*
 marathon route-nom circle-3.sg-imperf lake-gen shore-part
 'The marathon route followed the lake shore.'

(26) *Kauniit käytävät kiertävät pihan.*
 beautiful-pl-nom pathway-pl-nom circle-3.pl yard-gen-acc
 'The yard is circled by beautiful pathways.'

The subjective motion usage of *kiertää* can be expressed by an intransitive sentence or by a transitive sentence. In a transitive sentence, the case of the Landmark's representative, syntactic object, can be either partitive (26), when the aspect is imperfective, or genitive-accusative (27) or nominative-accusative, which makes the sentence perfective.

Example 25 shows the most typical subjective motion use of *kiertää*. In such processes, the physical shape of the Trajector's (*maratonreitti* 'marathon route') referent is composed of the actual shape of the referent of the Landmark (*järven ranta* 'lake shore'). In other words, the marathon route, when observed from above, follows the path of an entity that is moving more or less close to the shoreline of the lake (see example 13). The interpretation of subjective motion is mostly due to the encyclopedic knowledge associated with the Trajector; in example 25, the subject *maratonreitti* 'marathon route' brings about the reading of some elongated entity that is situated in the external world.

Example 26 profiles an interesting subjective motion process, where the Trajector surrounds the Landmark. This kind of subjective motion has its roots in the circumferential objective movement where the Trajector moves once round the Landmark (see example 12). This is expressed by the genitive-accusative case of the Landmark (*pihan*).

The examples 25 and 26 show how object case variation reveals the nature of the mental conceptualization process in subjective motion usage of this kind. Huumo (2002: 549) argues that, in subjective motion, the restrictive object (nominative-accusative and genitive-accusative; 26) implies that mental conceptualization reaches the end of the object's

referent. In the partial object construction (partitive; 25), on the other hand, it can be claimed that only some part of the object's referent is under mental contemplation.

The last example of the subjective motion usage of *kiertää* is the sentence 27.

- (27) *Kylätie* *kiertää* *tilan.*
 village road-nom circle-3.sg farm-gen-acc
 'The village road bypasses the farm.'

The subjective motion in example 27 is based on the objective motion process where the Trajector is avoiding CONTACT with the Landmark conceived of as a BARRIER (16 and 17). Thus, the path of the Trajector bypassing the Landmark in the corresponding objective motion is similar to a village road, in example 27, which motivates the use of *kiertää* in this sense.

4. Problematic cases

Even though the data seem to fall quite neatly into the process types presented here, the categories I have created are prototypical by nature, and with a large amount of material, it is obvious that some cases are not easy to classify. It was shown earlier in this paper that many process types profiled by *kiertää* are inherently ambiguous in the sense that they can be interpreted in two or, occasionally, even in three ways. The sentence 28 has three different readings.

- (28) *Aion* *kiertää* *Kainuuta.*
 intend-1.sg circle-1.inf Kainuu-part
 'I intend to tour in Kainuu.'
 'I intend to avoid Kainuu.'
 'I intend to travel along the borderline of the Kainuu area.'

The semantic differences in example 28 can be described by using Conceptual Basic Relations. In the first interpretation of example 28, *kiertää* profiles a process where the Trajector moves in the Landmark ('I intend to tour in Kainuu'). In this case, the Conceptual Relation between the Trajector and the Landmark is INCLUSION. The second reading is that the Trajector is avoiding the area of Kainuu ('I intend to avoid Kainuu'),

and in this process, the relation can be called SEPARATION. In the third possibility, the Trajector is moving along the borderline of the Kainuu area ('I intend to travel along the borderline of the Kainuu area'), and this is best characterized as CONTACT.

The ambiguity of sentences like 28 is due to the fact that the sentence represents elaborations of three different process types profiled by *kiertää*, and there is no formal criterion to disambiguate the sentence. Thus, only a larger context or encyclopedic knowledge would indicate the intended reading.

Similar examples of *kiertää* supporting the view of encyclopedic semantics are found in the sentences *Matti kiersi Lontoota* (Matti-nom circle-3.sg.-imperf London-part) 'Matti was touring London', and *Matti kiersi pöytää* (Matti-nom circle-3sg.-imperf table-part) 'Matti was going round the table'. In both sentences, the Landmark of the process is represented by a partitive case object. However, the semantic difference is obvious: the former profiles a process where the Trajector is moving inside the Landmark's referent, whereas the latter refers to motion outside the Landmark. I would argue that it is encyclopedic knowledge, such as knowledge about the size of the Landmark compared to the size of the Trajector, associated with the Landmark (and the Trajector), that determines the interpretations of such ambiguity. For example, the sentence *Muurahainen kiersi pöytää* (ant-nom circle-3.sg-imperf table-part) has two readings: 'An ant was circling around the table' and 'An ant was circling on the table'. This is due to the fact that ants are such small creatures that they can quite easily be moving either beside or on a table, whereas a person, in this context, would usually be moving only around the table with no ambiguity involved.

Some classification problems are also due to metonymy. A typical case is sentence 29. The example 29 can be understood as subjective motion if the Trajector's representative *vaellus* 'hike' is understood as a route of the hike, which is probably the most predictable reading. However, it seems to me that the Trajector can also be seen as referring to the people actually on the hike, e.g. moving along the route. If this interpretation, regardless of its peripheral probability, is accepted, sentence 29 is also an example of the objective motion of *kiertää*.

- (29) *Vaellus* *kiertää* *Kuusamossa*.
 hike-nom circle-3.sg Kuusamo-iness
 'The trail of the hike circles in the Kuusamo area.'
 'The people on hike are circling in Kuusamo.'

5. Concluding comments

At the beginning of this paper, I set myself two goals. The first was to evaluate the functionality of Cognitive Grammar in the field of lexical semantics. There are many different competing theories in the field of lexical semantics, which makes the position of Cognitive Grammar an issue. I find the following two aspects of Cognitive Grammar, illustrated in this paper, the most powerful support to the theory's capacity in lexical semantics, especially when describing verbs of motion.

First, Cognitive Grammar seems to be able to cover adequately all important aspects of a motion event (e.g. the moving entity, the location of movement, etc.). Most of all, the shape of the path cannot be ignored when dealing with verbs of motion that particularly specify the path, and solid tools to concentrate on this aspect of a motion event are provided by Cognitive Grammar. The Cognitive Grammar's practice to use figures to illustrate linguistic meaning is particularly useful in the semantics of verbs of motion.

Second, the division of the motion event into three types, objective, abstract and subjective motion, seems intuitively reasonable and emphasizes the semantic motivations behind the different usages of a polysemous motion verb lexeme. As a whole, Cognitive Grammar places a particular emphasis on the senses of a polysemous verb that are often considered peripheral and therefore left out of linguistic analysis. It may even be said that, in this sense, "figurative" or "metaphorical" usage of motion verbs is actually not secondary at all but rather an equally expressive manner of speech. One detail to argue for Cognitive Grammar is the fact that the way subjective motion is handled in Cognitive Grammar is intuitively plausible and makes sense.

I hope that my paper has been able to attain my second goal (concerning the importance of analyzing path) by illustrating that an effort to focus on the path, which has been rare so far, can certainly make a contribution to the lexical semantics of verbs of motion. Since I have concentrated here only on *kiertää*, the other Finnish verbs encoding indirect

path are likely to shed more light on the question of what kind of things are salient when expressing indirect path. As I see it, there is no doubt that the path itself would also deserve to be studied more closely in other languages.

Appendix: Abbreviations used in the glosses

ablat = ablative	acc = accusative
adess = adessive	allat = allative
cl = clitic	cond = conditional
elat = elative	gen = genitive
illat = illative	imperat = imperative
imperf = imperfect = preterite	
iness = inessive	inf = infinitive
instr = instructive	nom = nominative
part = partitive	partic = participle
pass = passive	pl = plural
px = possessive suffix	sg = singular
sup = superlative	transl = translative

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- SKS(T) = Suomalaisen Kirjallisuuden Seura(n toimituksia) [Publications of The Finnish Literature Society]
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