Exponent - Shaped Motion In German, English And French

An ontosemantic analysis

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Chapter 1

Introduction

This investigation is a contribution to cognitive semantics as it was established, among others, by Fauconnier, Geeraerts, Lakoff, Lakoff and Johnson, Langacker, Rosch and Talmy.¹

As the subject of this investigation is based on Talmy's *Lexicalization patterns: semantic structure in lexical forms* (Talmy, 1985), it is necessary to briefly outline Talmy’s approach here. It will be presented in greater depth in chapter 4. Talmy examined and compared the coding of motion events in typologically heterogenous languages. He found out that, from an ontological point of view, in addition to the superconcept of motion, four further components are of importance. These are:

a) the entity which moves or is moved (Talmy calls this entity *figure*; sometimes it is called *theme*. In this investigation, the entity which moves or is moved is called *exponent*)

b) the *ground* against which the exponent moves or is moved

c) the *path* along which the exponent moves or is moved

d) the *manner* and the *cause* of the motion

Talmy found out that natural languages tend to cocode the superconcept of motion and exactly one further component in the verb root. The verb root cocodes the superconcept of motion and either manner/cause, path or exponent. (The cocoding of motion and ground seems to be less favored insofar as it does not constitute a major lexicalization pattern as the codings of motion and manner/cause, motion and path, and motion and exponent do). The components which are not coded in the verb root are coded in other parts of the sentence, as in a prepositional phrase or a clause.

This investigation is about exponent-shaped motion verbs (Zaefferer, 2002:8), i.e. motion verbs which cocode the superconcept of motion and the exponent of motion in the verb root, in German, English and French.

The question of which verbs belong to the group of exponent-shaped motion verbs is not easy to answer, but the criteria according to which verbs can be classified as exponent-shaped motion verbs concern the relationship of the verb and the corresponding noun insofar as the concept denoted by the noun has to be conceptually primary and the concept denoted by the verb has to be conceptually secondary. This rules out motion verbs from which nouns denoting an exponent of motion are derived by means of affixational word formation (e.g. German: 'rasen'/Rasen'). These nouns are overtly secondary. The group of verbs which is doubtless the core of exponent-shaped motion verbs consists of verbs denoting a concept of motion, which are derived from a noun denoting the exponent of motion (e.g. German: 'Ei'/eìern', 'Robbe'/robben', 'Vagabund'/vagabundieren', English: 'snake'/to snake', French: 'papillon'/papillonner', 'fourmi'/fourmiller'). In these cases, the verb is conceptually based on the noun, from both a diachronic and a synchronic point of view. The meaning of these verbs is, roughly speaking, similitative, since it can be paraphrased as to move the way in which the exponent denoted by the noun base moves or typically moves.

In addition to this group of verbs, there is another group of verbs which may also be classified as exponent-shaped motion verbs. This is a group of motion verbs which also denote the way in which the exponent denoted by the corresponding noun moves or typically moves, but, diachronically, the
CHAPTER 1. INTRODUCTION

noun is derived from the verb by means of conversion. This means that
the direction of derivation is not overtly coded. Consider, for example, the
English noun-verb pairs 'spray'/'to spray' (diachronically, the verb is derived
from the noun) and 'spurt'/'to spurt' (diachronically, the noun is derived
from the verb (Chambers Dictionary of Etymology, 1988)). In both cases,
the meaning of the verb is to move as, or cause to move the water formation
denoted by the noun in a certain way. The meaning of both nouns is a certain
water formation which moves or is caused to move in a certain way, namely
the way denoted by the verb. It is suggested here that the classification of
these verbs as exponent-shaped motion verbs depends on whether or not
present-day speakers have the intuition that the verb is conceptually based
on the noun.

Plag (Plag, 2003:108-111) explores the problem of the directionality of con-
version and suggests that the historical relationship between noun and verb
and present day intuition do not always coincide. The noun-verb pair 'crowd'-/,
'to crowd' is given as an example for a diverging historical and present-day
directionality relationship. Historically, the verb was first and the noun is
derived, but present day speakers have the intuition that the verb is se-
manically based on the noun. According to Plag, this is because "complex
semantic changes may overwrite the original direction of conversion" (Plag,

This investigation is about the core of exponent-shaped motion verbs, i.e.
about denominial verbs which denote a motion concept, the source of which
is either an exponent's way to move or an exponent's typical way to move.

It must be considered that there are verbs which are not clearly denominial,
as in the German nominal and verbal concept 'Rolle'/Rollen' ('roll'/to roll').
Both are taken from French and have influenced each other (Kluge, 2002).
The French weather verbs 'neiger' and 'grêler' are primary and the nouns
'neige' and 'grêle' are derived, but the Latin precursors of these verbs are
denominial (Le Robert, Dictionnaire historique de la langue française, 1998).
In this investigation some decisions for or against the classification of a verb
as an exponent-shaped motion verb according to the etymological criterion
are disputable.

This investigation has three goals. First, it will be shown that the verbs
examined in this investigation differ semantically - with only one English
exception - from the exponent-shaped motion verbs proposed by Talmyn; the
vast majority of the verbs are manner verbs. Second, the semantics of the
verbs will be analyzed; third, the question of whether French, which Talmyn
classifies as a language with a preference for motion verbs which cocode
CHAPTER 1. INTRODUCTION

the superconcept of motion and path (e.g. sortir, entrer), treats exponent-shaped motion verbs - in French with only one exception manner-verbs - in a different way compared to the manner-languages English and German will be answered.

Chapters 2 to 5 deal with concepts which either form the conceptual background or are relevant to the analysis of the verbs in question. These are the concepts of polysemy and polyvalency in Chapter 2, cognitive linguistic semantic concepts, including a cognitive linguistic approach to metaphor and metonymy in Chapter 3, Talmyn's theory in Chapter 4, and the ontological framework used for the analysis of the verbs in chapter Chapter 5. Chapter 6 presents a theory of exponent-shaped motion verbs. Chapters 7 to 9 give an analysis of the fifty-three verbs which were found and which are more than likely all the verbs of this type in the three languages examined.
Chapter 2

Polysemy and Polyvalency
(Zaefferer)

The lexemes in natural languages tend to have two or three meanings which are in a motivated relationship with the basic meaning insofar as they are metaphoric or metonymic extensions of the basic reading. This is called polysemy. The lexemes are disambiguated within the context of an utterance. This is because there is a close relationship between lexical polysemy and polyvalency. The different readings of a polysemous lexeme are accompanied by different valency patterns.

On the one hand, the notion of valency is a syntactic one. Zaefferer (Zaefferer, 2002:1) is in agreement with Cruse (Cruse, 1986:80) in calling a reading of a polysemous lexeme a lexical unit, and he defines the grammatical valency of a lexical unit as the set of operations that are required to form appropriate complete linguistic items from it. Grammatical valency depends on pragmatic factors. In pro-drop languages the subject position can remain empty when it has referential character. In a context with only one topical entity, the subject position remains empty, which is not the case when there are more topical entities. Therefore, the lexicon gives the grammatical valency potential of a linguistic unit and not its grammatical valency (Zaefferer, 2002:1). In the case of grammatical valency, "an appropriate complete linguistic item to be formed from a noun reading is, for instance, a corresponding noun phrase, and an appropriate complete linguistic item to be formed from a verb reading is a clause or a sentence" (Zaefferer, 2002:1).

On the other hand, the notion of valency is a semantic one. The definition proposed by Zaefferer is: the semantic valency of a lexical unit is the set of operations that are required to form appropriate complete semantic items.
from it. "An appropriate complete semantic item to be formed from a noun reading is for instance a concept of a restricted act of reference, and an appropriate complete semantic item to be formed from a verb reading is a concept of an illocutionary act or of a proposition" (Zaefferer, 2002:1-2).

In contrast to grammatical valency, semantic valency is not dependent on a context, which means that there is no differentiation between actual and potential valency.

Although grammatical and semantic valency tend to fall together, this is not always the case because a third factor plays a role, namely, the information and presentation structure, which is variable in three dimensions and six pragmatic roles, as follows (Zaefferer, 2002:2):

- what is talked about \( (\text{Topic}) \)
- what is said of this \( (\text{Predication}) \)
- what is given \( (\text{Given}) \)
- what is new \( (\text{New}) \)
- the intended output, which is divided into \( \text{Focus} \) and \( \text{Background} \)

According to Zaefferer, the presentation structure is "the incremental buildup of conceptual content in a given communication situation. One of the principles of presentation structure says that when something is obvious it needn’t be encoded lest the grammar requires that" (Zaefferer, 2002:2).

In pro-drop languages, elements bearing semantic roles need not be expressed when the grammatical role of these elements is \( \text{subject} \) and the pragmatic role is \( \text{topic, given, or background} \).

As the definitions of grammatical and semantic valency given above are rather broad, Zaefferer gives a narrower definition of the concepts (Zaefferer, 2002:2-3):

\[ \text{Let a be a lexical unit. We then call the grammatical role inventory of a those grammatical roles that according to a’s grammatical valency are compatible with a, and core g-role inventory of a those elements of the grammatical role inventory of a that must be overtly realized on grammatical grounds together with the pragmatic conditions under which this holds.} \]
Let a be as above. We then further call the **semantic role inventory** of a those semantic roles that according to a’s semantic valency are compatible with a, and **core s-role inventory** of a those elements of the semantic role inventory of a that must be filled on analytical grounds (i.e. the role-giving concept would be unconceivable without them.)

Linking relates grammatical roles to semantic and pragmatic roles, and therefore has two aspects.

a) **decoding**: given an expression bearing a grammatical role in an utterance expression, what semantic and pragmatic role is borne by its denotation?

b) **encoding**: given the semantic and pragmatic role of an element of an utterance meaning, what is the grammatical role of the expression that encodes it, if there is any? (Zaefferer, 2002: 3).
Chapter 3

Cognitive grammar (Langacker)

As the approach of this investigation is a cognitive one, the following chapter presents the basic concepts of cognitive grammar according to Langacker (Langacker, 1987) which are relevant either as conceptual background or with regard to the semantic analysis of the verbs in question. The most basic assumptions of cognitive grammar are:

- **grammar is nongenerative**
- a rigid distinction between linguistic and nonlinguistic elements is arbitrary
- **grammatical structure is inherently symbolic**

The goal of a cognitive linguistic theory is to describe the **grammar of a language** which is defined as the **psychological representation of a linguistic system**. This "internal grammar" is the object of description (Langacker, 1987:56-57).

"The psychological representation of a linguistic system is also referred to by linguists as the grammar of a language. The present model identifies this "internal" grammar as its object of description, conceiving it dynamically, as a constantly evolving set of cognitive routines that are shaped, maintained, and modified by language use. (...) More specifically, the grammar of a language is defined as those aspects of cognitive organization in which resides a speaker’s grasp of established linguistic convention. It can be characterized as a structured inventory of conventional linguistic units” (Langacker, 1987:57).
3.1 The Fundamental Concepts

3.1.1 Units / Linguistic Units

"A unit is a structure that the speaker has mastered quite thoroughly, to the extent that he can employ it in largely automatic fashion, without having to focus his attention specifically on its individual parts or their arrangement. Despite its internal complexity, a unit constitutes for the speaker a "prepackaged" assembly; because he has no need to reflect on how to put it together, he can manipulate it with ease as a unitary entity" (Langacker, 1987:57).

The concept of unit is so broad that it covers any cognitive activity. A clear distinction between a unit and a linguistic unit, i.e. a unit which concerns only grammar, is not regarded as possible. This conception does not conform with the standard conception of language as an autonomous formal system. Langacker’s position is that there is a prototypical core of linguistic units and that there are non-prototypical units which are more or less distant with regard to the core. Linguistic units include semantic and phonological structures; however, neither the ability to conceptualize nor the ability to produce sounds are solely linguistic in nature. The association between a semantic and a phonological structure is called a symbolic unit, “the construct deployed in cognitive grammar for the representation of both lexical and grammatical structure”. Grammatical patterns differ from other symbolic structures not in kind but only in degree of specificity. They are called schematic symbolic units (Langacker, 1987:57-60).

3.1.2 Conventional Linguistic Units

"The grammar of a language is a characterization of established linguistic convention. Conventionality implies that something is shared - and further, that it is recognized as being shared - by a substantial number of individuals" (Langacker, 1987:62).

The conventionality of a linguistic unit can be more or less distinct so that there are degrees of conventionality. "A linguistic unit may be shared by an entire speech community, by a substantial subgroup (e.g. the speakers within a dialect area, or the members of a profession), or by a mere handful of people" (Langacker, 1987:62).
3.1.3 Grammar as an Inventory of Conventional Linguistic Units

Within the cognitive approach, grammar is, as mentioned above, considered to be nongenerative because generativity does not conform with the fundamental concepts of cognitive grammar in some respects, the most important of which is the fact that generativity is based on the idea that there is a mechanism which generates all the well-formed expressions of a language, including their semantic structure. Second, a generative approach is not compatible with the encyclopedic understanding of semantics within cognitive grammar, as an indefinite knowledge cannot be attributed to a generative mechanism. Third, a generative mechanism leaves out aspects of language use and of figurative language. Fourth, a generative approach sees language as an autonomous formal system which is not compatible with the stand taken by the cognitive linguistic approach: that language can only be characterized in relation to other cognitive functions and abilities (e.g. problem-solving abilities). When new expressions are assembled, problem-solving strategies must be employed. Since problem-solving abilities are not based exclusively on the knowledge of the conventionality of linguistic units, but on other resources as well, the assembling of new expressions is, according to the cognitive approach, something that speakers do and not something for which grammar can be made responsible.

How are conventionality and language use related? Which factors play a role in the production of a linguistic utterance? It is assumed that a situation which has to be assessed by the speaker in all its contexts makes it necessary for a linguistic expression to be found for a conceptualization. Then there is a problem which has to be solved, as the situation shows certain restrictions with regard to what is an acceptable solution to the problem. These restrictions concern the social relationship between the speaker and the hearer, they concern the question of what is relevant and the question of how the utterance is interpreted within the discourse as a whole. The task of finding a suitable linguistic expression is called coding; the solution is called target structure. The target is a usage event in which the speaker assembles a symbolic expression in order to fulfill a certain purpose. There is a symbolic relationship between the conceptualization and the phonological structure.

A grammar offers two kinds of symbolic resources. These are, on the one hand, specific symbolic units such as morphemes, polymorphematic lexical units, and larger conventional expressions, and on the other hand, established patterns, namely schematic symbolic units, which allow the assembling of complex symbolic structures out of simpler symbolic structures. The degree
CHAPTER 3. COGNITIVE GRAMMAR (LANGACKER)

to which a target structure is in accord with the conventional units of a grammar is called the \textit{degree of conventionality}. Langacker proposes that a conventional unit \textit{sanctions} the usage to the extent to which the target structure is in accord with the conventional units of a grammar (Langacker, 1987:64-66).

"To the extent that a target structure accords with the conventional units in the grammar, these units are said to sanction this usage"


Langacker makes a distinction between \textit{full sanction} and \textit{partial sanction}. There is \textit{full sanction} when a \textit{conventionally established unit} is considered to be a fully appropriate target structure. There is full sanction, for example, in the case of categorization. A \textit{conventional unit} defines a category and sanctions the target structure to the extent to which the latter is considered to be a member of a category. Categorization depends on a relation of \textit{schematicity} and can be equated with a node in taxonomic hierarchies. The concept which is higher in a taxonomic hierarchy, e.g. (TREE) is schematic with regard to concepts which are lower in the taxonomic hierarchy (e.g. (OAK), (MAPLE), (ELM)). Langacker calls these concepts \textit{elaboration} or \textit{instantiation} of the schema. When a \textit{sanctioning unit} is considered to be an unproblematic \textit{instantiation} of a schema, there is \textit{full schematicity} and \textit{full sanction}. When a sanctioning unit is considered to be a problematic \textit{instantiation} of a schema, there is \textit{partial schematicity} and \textit{partial sanction}. This means that \textit{partial sanction} can be characterized by the fact that a \textit{conventionally established unit} is not considered to be fully appropriate. There is, more or less, nonconventionality, which is a normal, tolerated aspect of language use. When there is \textit{partial sanction}, the target structure is interpreted as an extension of a \textit{conventionally established unit}. Extensions like this are part of our flexibility in solving coding problems (Langacker, 1987:63-71).

3.1.4 \textit{Creativity}

Two kinds of creativity are usually distinguished:

1. Creativity which is based on the production of novel expressions by using grammatical rules correctly

2. Creativity which is based on the adaptation of lexical items to new situations; this is the case in figurative language and when grammatical rules are violated
Langacker proposes that a rigid distinction between these two types of creativity is not possible within cognitive linguistics. Rather, creativity is a phenomenon which is seen within the speaker’s context of knowledge and within her/his ability to assess a situation and to solve coding problems (Langacker, 1987:71-72).

3.2 Cognitive Abilities, Focal Adjustment

Langacker (Langacker, 1987:99-146) proposes that several general cognitive abilities are relevant with regard to language (e.g. comparison, imagery focal adjustment, etc.). It is only focal adjustment which plays a role in this investigation and will be presented in the following (Langacker, 1987:116-137).

Linguistic expressions refer to conceived situations which are called scenes. For describing the meaning of a linguistic expression, it is, however, not sufficient to identify and analyze the situation in question. The same situation can be constructed in a number of ways:

- the lamp on the table
- the table with the lamp on it
- the lamp is on the table

Langacker calls variations like this focal adjustments. The parameters involved here are a) selection b) perspective c) abstraction.

3.2.1 Selection

Predications must be seen in relation to specific cognitive domains. To illustrate this, Langacker gives the following nominal expression as an example:

- the big blue plastic cup

Within this nominal expression, each modifier selects a domain, and the properties of the designated entity are specified more precisely with respect to the relevant domain.

**the**: identification by speech act participant
**big**: a comparison scale for spatial extension

**blue**: color

**plastic**: material

A variety of specifications within a variety of domains is necessary to fully characterize the semantics of *cup* (shape, function, material, size).

Another example which Langacker proposes to illustrate that predications are made with respect to domains is the lexeme 'close' in the following sentences, in each of which 'close' selects a different domain. These are: spatial domain (a), abstract temporal domain (b), color domain (c), and emotive domain (d).

(a) *The tree is quite close to the garage.*

(b) *It's already close to Christmas.*

(c) *That paint is close to the blue we want for the dining room.*

(d) *Steve and his sister are very close to one another.*

The four examples below illustrate the selection of different values on a scale within one and the same domain by one and the same expression, namely the lexeme 'close'.

(a) *The two galaxies are very close to one another.*

(b) *San Jose is close to Berkeley.*

(c) *The runner is staying close to first base.*

(d) *The sulfur and oxygen atoms are quite close to one another in this type of molecule.*

Another aspect of the focal adjustment selection is the scope of a predication, which Langacker defines as *those portions of a scene that it specially includes*. The entity which is maximally prominent is called *profile*; the context which is necessary for the characterization of the profile is called *base* (Langacker, 1987:117-120).
3.2.2 Perspective

The focal adjustment perspective (Langacker, 1987:120-122) is based on the fact that the perspective on a scene is of importance for the semantic and syntactic structure of a sentence and vice versa. Langacker considers the figure/ground organization to be fundamental for the functioning of cognition. Figure is defined as the substructure of a scene, which is perceived as being exposed with respect to the rest of the scene, namely the ground. It is not necessarily the case that the figure/ground organization is given; rather, it is normally possible to alternately structure one and the same scene. However, in many cases a certain figure/ground organization is the more likely and more natural one. Several factors play a role here, one of the most important of which is motion. The entity which moves is seen as the figure which changes its position with regard to the ground.

3.2.2.1 Viewpoint

The concept of viewpoint (Langacker, 1987:122-126) is based on the cognitive ability of humans to look at physical objects from different sides. For this reason, Langacker considers viewpoint to be of particular importance for conceptions based on visual experience, but also for many other types of conceptions. The viewpoint from which a complex scene with multiple participants is conceptualized, namely the different positions in relation to them, has direct influence on their perceived proximity and salience. Langacker defines the concept of viewpoint as subsuming the more specific concepts of vantage point and orientation. The vantage point is the position from which a scene is viewed. Walking alongside a house, for example, involves a gradual shift of a person's vantage point. The concept of orientation is based on the axes of the visual field or a comparable coordinate system. Thus, within a certain vantage point, different orientations, which can be canonical as well as noncanonical, are possible.

3.2.2.2 Foreground / Background

Langacker proposes that a particular choice of vantage point imposes on the scene an alignment into foreground and background. The concepts of foreground and background are based on the relative proximity of a portion of a scene to the vantage point. Thus the foreground of a scene is the area which is most nearly adjacent to the vantage point. As a participant in the foreground of a scene is closer to the viewer and thus more prominent, there
is a tendency towards participants in the foreground being conceptualized as the *figure* in a scene (Langacker, 1987:124-126).

### 3.2.3 Abstraction

The focal adjustment *abstraction* is based on the conceptualization of a situation in different degrees of *schematicity*. As the notion *schematicity* refers to the level of specificity, namely to the question of how detailed something is characterized, a higher degree of abstraction provides less detailed information compared to a lower degree of abstraction (Langacker, 1987:132-137).

### 3.3 Semantic Structure

The cognitive approach sees semantics as a mental phenomenon which has to be described within a framework of cognitive processes. Langacker (Langacker, 1987:97-98) adopts, following Chafe (Chafe, 1970:74-76), a *conceptual* or *ideational* view of meaning. The notion *conceptual structure* covers both linguistic as well as nonlinguistic concepts. The term *semantic structure* is defined as the conceptual structure which functions as the semantic side of a linguistic expression. Semantic structures are conceptualizations which are formed for symbolic purposes according to linguistic convention. Thus, semantic analysis requires explicit characterization of the structure of conceptualizations.

#### 3.3.1 Domains

Langacker (Langacker, 1987:147-154) proposes that every *predicate* can be characterized with respect to one or more domains which, as a whole, form a *domain matrix*. He poses the question of what the nature of domains is and how the domains form a multi-domain matrix.

##### 3.3.1.1 Types of Domains

Langacker (Langacker, 1987:150) considers all *linguistic units* to be dependent on a context which is provided by the domain within which a semantic unit can be characterized. Domains are cognitive entities, and the discussion of their properties concerns first the question of whether or not they can
be reduced to more fundamental cognitive structures, second, their dimensionality, and third, the distinction between locational and configurational domains.

3.3.1.1.1 Basic vs. Abstract Domains Langacker (Langacker, 1987: 147-150) differentiates between basic domains and abstract domains. Basic domains cannot be reduced to more fundamental concepts since their constitution is based on an inborn cognitive apparatus which can be attributed to genetically determined physical properties of the human organism, namely sensory capacities. Thus, the basic domains of space, color, pitch, taste, temperature, and pressure are related to the human capacity of seeing, hearing, tasting, smelling, and kinesthetic sensations.

Langacker proposes that every conceptualization originates in basic domains whose constitution, however, often requires higher cognitive abilities, as the basic domain of time does.

Abstract domains are nonbasic domains which function as a domain for the definition of higher order concepts.

3.3.1.1.2 Dimensionality The notion of dimensionality concerns the inner structure of basic and abstract domains. A domain can be one-dimensional, as for example the domain of time is, or multi-dimensional. The domain of space can be described in terms of either two- or three-dimensionality; the domain of color is based on the parameters of brightness, hue, and saturation. Langacker concedes, however, that it is not in all cases possible to structure a domain in terms of a certain number of parameters.

Domains are, with respect to a certain domain, either bounded or unbounded. An example for a bounded domain is the domain of the alphabet; an example for an unbounded domain is the domain of time. The criteria bounded and unbounded can also affect only one extreme of a dimension. The domain of similarity, for example, is bounded at one extreme, namely the point of identity; it is, however, unbounded at the other extreme.

Further, a value held along a given dimension can either be continuous or discrete. Langacker proposes that whereas the basic domains are generally continuous, discreteness is characteristic for abstract domains. Langacker gives the domain of 'kinship' as an example. Within a kinship network, an individual cannot occupy a value between two nodes as there is no intermediate position between, for example, 'a parent' and 'a child', or 'an aunt' and 'a niece' (Langacker, 1987:150-152).
3.3.1.1.3 **Locational v.s. configurational domains**  Domains can be either *locational* or *configurational*, i.e. a predicate specifies either a location or a configuration in some domain. Langacker suggests that the spatial domain can be taken as prototypical for a *configurational domain*, as the conception of space is a three-dimensional configuration. Temperature, however, is an example for a *locational domain*. Temperature values are locations on a one-dimensional scale (Langacker, 1987:152-154).

### 3.4 Dictionaries and Encyclopedias

The characterization of most concepts requires specifications in several domains. The characterization of the concept (BANANA) requires a matrix consisting of a variety of *basic domains* such as *shape, taste, smell, color*, as well as *abstract domains* including, for example, domains which provide the knowledge that a banana is an edible fruit, that they are tropical in origin, that they grow in bunches on trees, etc. The question here is which specifications constitute the meaning of the lexical unit 'banana' and belong to a grammar of English, and which specifications are pragmatic in nature. Langacker suggests that all of these specifications are part of the meaning of the lexical unit 'banana' (Langacker, 1987:154-158).

Langacker (Langacker, 1987:154) argues that in his opinion the distinction between semantics and pragmatics is artificial and that the semantics of natural languages is encyclopedic in nature. This position is justified against several objections, as follows:

#### 3.4.1 Centrality

First objection: Would it not be absurd to assume that everything which one knows about cats - for example, the fact that my neighbor has an allergy to cats, i.e., all contingent facts - are part of the meaning of the lexeme 'cat'? Langacker replies to that objection by arguing that not every element of knowledge has the same status; rather, the elements of knowledge are graded as far as their *centrality* is concerned. He does not see the possibility of making a nonarbitrary decision about which elements belong to the meaning of a lexeme and which elements do not. That does not, however, mean that all elements must be taken into consideration within an analysis.

There are, according to Langacker, four factors which correlate with a specification's degree of centrality, as the degree of centrality of a specification
depends on in what way it is: a) conventional, b) generic, c) intrinsic, and d) characteristic.

A specification’s conventionality depends on the degree to which it is shared among the speakers of a language community. A high degree of conventionality correlates with a high degree of centrality.

As far as the second factor genericity is concerned, it is generally the case that generic specifications have centrality-character rather than nongeneric specifications. As an example, Langacker contrasts the knowledge that two colleagues are allergic to the cat, Metathesis, with the knowledge that many people are allergic to cats; he classifies the former as very specific and the latter, however, as highly generic.

The factor intrinsicness refers to the degree to which a property can be characterized without referring to external entities. When it is possible to characterize a property without referring to external entities, it is intrinsic and thus has a high degree of centrality. ‘Shape’, for example, is highly intrinsic for objects, which is not the case for ‘size’, whose characterization needs reference to a scale of comparison or measurement.

The last factor which contributes to centrality is the degree to which a specification is characteristic. Langacker defines a characteristic specification as being unique to the class of entities designated by an expression and consequently sufficient to identify a class member. Here, ‘shape’ is, for example, more characteristic than color because ‘shape’ is sufficient to identify a cat, but ‘color’ is not (Langacker, 1987:158-161).

### 3.4.2 Access

The second objection to an encyclopedic understanding of semantics concerns the decoding of linguistic information insofar as it is doubtful whether all elements of knowledge are present in a speaker’s mind when he or she grasps the meaning of a lexeme; it is even doubtful whether all central pieces of knowledge are present. Thus it can be objected that an encyclopedic approach to semantics lacks cognitive plausibility. Langacker accepts this objection, but argues that it does not conflict with an encyclopedic conception of semantics. For Langacker, the problem lies in the conduit metaphor, in which lexical items are containers for meaning and meaning is transported from the speaker to the hearer whenever linguistic expressions are transported from the speaker to the hearer. The conduit metaphor implies that the hearer receives the meaning by "opening" the containers in which the meaning is transported, namely the lexical items. Langacker argues here that nothing
but sound waves travel from the speaker to the hearer, and the hearer is able
to reconstruct from the acoustic signal a reasonable hypothesis about the
conceptualization intended by the speaker (Langacker, 1987:161-166).

Langacker defines concepts as *cognitive routines* which have *unit*-character,
and points out that a *predicate* like (BANANA) is not a unitary concept,
i.e. a single complex routine which is activated as a whole; rather, it is a *set*
of routines which are interrelated in a certain way so that their *coactivation*
is possible. This is based on the assumption that knowledge is organized
and represented in networks. An encyclopedic characterization of a *predicate*
involves several interrelated *complex routines*, each representing a separate
specification, and not all of which necessarily are being activated at the same
time. Langacker, however, assumes that some of them have enough centrality
that they are activated when the addressee is confronted with a lexical item

### 3.5 Metaphor / Metonymy (Croft)

Croft (Croft, 2002:161-205) starts his cognitive semantic approach to meta-
phor and metonymy with the following assumptions. Metaphor and metonymy
are induced by linguistic and nonlinguistic contexts. Metaphor and metonymy
are of interest from the point of view of semantic composition insofar as the
interpretation of the metaphorical and the metonymic expression is determined
by the whole construction within which this expression stands. The concept
of semantic domains plays an important role in the definition of metaphor
because here a *"mapping of conceptual structure from one domain to another"*
is involved. Domains also play an important but not, however, a defining role
in the understanding of metonymy, as here a *highlighting* of a domain within
a domain matrix is involved.

Croft (Croft, 2002:162) departs from the sentence

\[ \text{Denmark shot down the Maastricht treaty}, \]

which is usually analyzed as containing a metaphor and metonymy. Here it
can be asked how the addressee knows that this sentence is neither about a
territory in Europe nor is it about shooting, and how the addressee knows
that *Denmark* is metonymic for *the voters of Denmark* and *shot down* is
metaphoric for *cause to fail*. How are figurative meanings like these con-
structed? What exactly is it that prevents the addressee from understanding
the metaphorical and the metonymic expression literally?
The problem of semantic composition is usually solved by saying that the meaning of the parts determines the meaning of the whole. Croft proposes that in cases of the interpretation of metaphoric and metonymic expressions, the problem of semantic composition seems to be the other way around, namely that the meaning of the whole determines the meaning of the parts. Croft calls this principle the "conceptual unity of domain", which means that all elements of a syntactic unit are interpreted within the same domain. As far as the above-mentioned example is concerned, the whole sentence is interpreted within the domain of 'political activity'. Croft sees the metonymic or metaphoric interpretation of an expression as adjustments (Croft considers 'adjustment' to be approximately equivalent to what Langacker calls 'local adjustment') to the domain within which the whole sentence is interpreted, namely to the domain 'political activity'.

As Croft’s analysis is based on Langacker’s concepts, an overview of the assumptions underlying Croft’s approach is given here (Croft, 2002:163-174):

- semantics is encyclopedic in nature.
- a consequence of the encyclopedic nature of semantics is that world knowledge as well as aspects of pragmatics belong to semantics.
- central as well as peripheral knowledge about an entity is accessible.
- encyclopedic knowledge is organized in domains.
- a predication (in Croft’s terminology concept) is a semantic structure which is symbolized by a word.
- a concept can be a profile and presuppose another concept which is the base, or it can be a base which is presupposed by another concept, namely the profile. When a concept is a base it usually functions as a base for several other concepts.
- any configuration of knowledge and any conceptualization of whatever complexity can constitute a domain.
- Croft calls a domain which is presupposed by a profiled concept a base domain (Langacker’s term is scope of predication).
- the combination of domains which are presupposed by a concept and which are copresent simultaneously is called a domain matrix.
• the vast majority of concepts belongs to abstract domains, which are themselves profiled within more complex domain matrices and which presuppose a range of basic domains. Croft calls this domain structure.

As far as the interpretation of metaphor is concerned, Croft refers to Lakoff-Johnson’s approach (Lakoff-Johnson, 1980), in which metaphors as

She is in a good mood

are analyzed as

a conceptualization of the domain in terms of another autonomous domain, that is, a mapping across domains.

The domains which are involved in the example mentioned above, the source domain and the target domain, do not form a domain matrix for the concepts involved. The use of 'in' for the relationship between a person and his or her emotional condition does not mean that the speaker has constructed a profile for the metaphorically used 'in', which codes a spatial and an emotional relation at the same time. It is only the emotional domain which is the profile with the use of 'in' governing an interpretation which imposes a spatial structure on the concept of emotional condition. Thus, metaphor involves a mapping of two domains which do not belong to the same domain matrix.

Next, Croft (Croft, 2002:178-179) deals with the interpretation of the metonymy and gives the following examples:

a. Proust spent most of his time in bed.
b. Proust is tough to read.

The sentence given in a. is usually analyzed with the expression Proust being interpreted literally, whereas the expression Proust in the sentence given in example b. is analyzed as being interpreted metonymically, i.e. the author representing his works.

The interpretation of the metonymy requires a shift of domains, and this is - in contrast to the interpretation of metaphor - within the same domain matrix. Croft calls this conceptual effect domain highlighting, "since the metonymy makes primary a domain that is secondary in the literal reading" (Croft, 2002:179).
3.5.1 Domain Mapping and Domain Highlighting

Croft (Croft, 2002:187-194) starts to develop his approach to metaphor and metonymy by analyzing the following examples, which are taken from Lakoff-Johnson (Lakoff-Johnson, 1980:32 and 45):

He’s in love.
We’re out of trouble now.
He’s coming out of the coma.
I’m slowly getting into shape.
He entered a state of euphoria.
He fell into a depression.
He likes to read the Marquis de Sade.
He’s in dance.
Acrylic has taken over the art world.
The Times hasn’t arrived at the press conference yet.
Mrs. Grundy frowns on blue jeans.
New windshield wipers will satisfy him.

Croft proposes that the sentences give the impression that metaphor occurs in connection with predicates, i.e. with verbs and prepositions, whereas metonymy occurs in connection with nouns.

This analysis, however, is not correct, as the following examples show:

mouth of a person, an animal, a bottle, a cave, a river (Cruse, 1986:72)
handle of a door, suitcase, umbrella, sword, spoon (Cruse, 1986:74)
tree, phrase structure tree, family tree, clothes tree
cup (for drinking), acorn cup, resin cup, cup (for capstan), cup (golf hole), bra cup (Dirven, 1985)
She swore foully.
She swore loudly.
The vase fell quickly.
The vase fell far.
CHAPTER 3. COGNITIVE GRAMMAR (LANGACKER)

The diverging uses of *mouth*, *handle*, *tree*, and *cup* in the first four examples can be attributed to the fact that they are the profile in different domains. There is, however, in all the cases a similarity with respect to shape and function, namely the schematic similarity which is characteristic for metaphors. In the last four examples, it is the adverb which induces *domain highlighting*, which is possible because the verb is associated with more than one domain. In the last two examples, the adverb induces *highlighting* within the *time/change-domain* and in the *location/distance-domain*, respectively.

Despite the fact that *domain mapping* and *domain highlighting* can occur with every lexical category, Croft suggests that the two cognitive phenomena are subject to a generalization. In the first four examples, it is the genitive attribute which induces the *domain mapping*; in the last four examples, it is the adverb which induces the *domain highlighting*. As the generalization is based on the approach to syntactic-semantic composition proposed within the framework of cognitive grammar, this approach is briefly outlined in the following.

As already mentioned in 3.4.1., one of the criteria for *centrality* is *intrinsicness*, which is the extent to which a concept refers to external entities. Concepts which involve extrinsic entities are called *relational concepts*. The external entities which are included by these concepts can be roughly equated with the arguments in formal semantics. So, (EAT) includes an eater and the eaten thing. There are also *nonrelational concepts* which are called *Things* in cognitive grammar. *Things* are symbolized by nouns, whereas *relations* are symbolized by verbs, adjectives, adverbs, and prepositions. Syntactic/semantic composition involves two aspects. The first aspect concerns the question of which semantic type the resulting complex expression is and the second aspect concerns the question of how the components involved are put together. The phrase *the fat book* and the sentence *the book is fat* are of different semantic types, as the phrase symbolizes a *Thing*, whereas the sentence symbolizes a *state of affairs*. The phrase and the sentence differ in their *profile determinant*, i.e. the component which determines the semantic type of the resulting complex expression. 'Book' is the *profile determinant* in the phrase *'the fat book'*; in the sentence *'the book is fat'*; (being) 'fat' is the *profile determinant*. *Profile determinacy* is a function of the construction into which words enter.

Here, one could assume that *relationality* is subject to *semantic composition*, which actually is true for the canonic case of verb with a subject and an object depending on it, as in the sentence *Mara sings*. Here the subject is *nonrelational* and the predicate is *relational*. The subject fills the *slot* for the singer within the relational semantic structure of *sing*. In the case of
Mara sings beautifully, however, 'beautiful(ly)' is a relational structure with a slot for a process and 'sings' fills this slot. The fact that 'sing' is inherently relational is irrelevant within its combination with 'beautifully'. Thus, within one and the same sentence, 'sings' is on one hand an entity which provides a slot which has to be filled, and on the other hand, 'sings' fills another entity's slot. Langacker argues here that the syntactic/semantic composition is not based on the relationality of the combination of the symbolic units, but on independent phenomena, which he calls dependence and autonomy. In most grammatical relations, one predication is dependent and the other one is autonomous. Langacker (Langacker, 1987:300) proposes the following definition:

"One structure D is dependent on the other, A, to the extent that A constitutes an elaboration of a salient substructure within D".

Croft (Croft, 2002:191-192) illustrates this with the above-mentioned sentence, Mara sings beautifully. The semantic structure symbolized by 'Mara' elaborates a salient substructure of 'sings', namely the schematic singer within semantic representation expressed by the relational predication (concept). 'Sings' is dependent and 'Mara' is autonomous. Within the combination of 'sings' and 'beautifully', it is 'sings' which elaborates a salient substructure of 'beautifully', namely the schematic process, which makes a relational predication out of it. Thus, 'beautifully' is dependent and 'sings' is autonomous. This interpretation analyzes 'sings' as dependent with respect to 'Mara' and autonomous with respect to 'beautifully'. Autonomy and dependence are concepts which refer to the relation between entities, which explains why they are needed to describe semantic composition.

Croft proposes an approach to the cognitive phenomena of domain mapping and domain highlighting which is based on the concepts of autonomy and dependence:

"domain mapping occurs with dependent predications, and domain highlighting occurs with autonomous predications".

As dependent does not necessarily mean relational and autonomous does not necessarily mean nonrelational, there is no connection between metaphor, domain mapping, and relational predications, and between metonymy, domain highlighting, and nonrelational predications, respectively.

She's in a good mood.
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Here, the metaphorical expression is dependent with respect to the object. The autonomous expression induces the domain mapping. A good mood is a state which is interpreted metaphorically in terms of the spatial preposition.

He likes to read Proust.

Domain highlighting manifests itself in the autonomous expression (Proust) which is dependent with respect to the verb. The verb induces domain highlighting.

Within a grammatical combination consisting of an expression which is autonomous and an expression which is dependent, the dependent expression can induce domain highlighting in the autonomous expression and the autonomous expression can induce domain mapping in the dependent expression. The reason for this is that the expression as a whole (consisting of an autonomous predication and a dependent predication) must be interpreted within one same domain or domain matrix. This is what Croft calls unity of domain. The unity of domain and the adjustments which are required (e.g. metaphor, metonymy and other adjustments) are based on Grice’s assumption that an utterance is coherent.
Chapter 4

Talmy’s Approach

The theoretical background of this investigation is, as mentioned above, Talmy’s *Lexicalization patterns: semantic structure in lexical forms* (Talmy, 1985). Talmy departs from the position that it is possible to isolate and identify elements from the field of meaning and the field of linguistic expressions independently from each other.

Then the question to be answered is: which semantic elements are coded by which linguistic expressions? This is in most cases not a one-to-one relationship. On the one hand, it is possible that a combination of semantic elements is coded by one linguistic element; on the other hand, it is possible that one semantic element is coded by a combination of linguistic elements. What is more, semantic elements of a different type can be coded by linguistic elements of the same type, and semantic elements of the same type can be coded by linguistic elements of a different type.

Talmy wants to find out whether there are systematic patterns in the coding of certain semantic elements by certain linguistic elements and whether languages make use of a certain type of coding pattern. In addition to the question of whether there are systematic coding patterns and typological patterns, Talmy wants to answer the question of whether universal principles can be extracted from them.

The examination of the relationship between meaning and linguistic expression can be done by means of two possible strategies, the semasiological and the onomasiological strategy. Talmy chooses the first, in which the linguistic entity remains constant and one tries to find out which semantic elements are coded by it. As far as the linguistic entity is concerned, Talmy is interested in two entities: an open-class element, namely the verb root, and a closed-class element, namely the satellite. This restriction on the verb root, which
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is a single morpheme, allows one to compare lexicalization patterns of languages with completely different word structures. In Chinese, for example, the verb root stands alone; in a polysyntactic language such as Atsugewi, the verb root, together with many affixes, forms a complex verbal word. (Talmy, 1985:59-61)

"Present in many if not all languages, satellites are certain immediate constituents of a verb root other than inflections, auxiliaries, or nominal arguments. They relate to the verb root as periphery (or modifiers) to a head. A verb root together with its satellites forms a constituent in its own right, the 'verbal complex', also not generally recognized. It is this constituent as a whole that relates to such other constituents as an inflectional affix-set, an auxiliary, or a direct object noun phrase." (Talmy, 1985:102)

eample: (Talmy, 1985:102)

satellite verb complex
←over start ←over-
←mis fire ←mis-

example sentence:
The record started over.
The engine misfired.

In English, up to four satellites can appear together with the verbal complex come ←right ←back down ←out from up in there. In traditional grammar these elements are called verb particles. Talmy’s introduction of the notion satellite offers advantages when typologically different languages are compared because it covers elements like separable and nonseparable prefixes in German and Russian, the second element of the verbal compound in Chinese, or any affix except for inflectional affixes which, together with the verb root, form a polysyntactic verb in Atsugewi (Talmy, 1985:102-103).

4.1 Outline of a Motion Event

For Talmy, a motion event is a situation in which motion takes place as well as a situation in which a position is maintained (maintenance of a stationary location).
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A motion event can be characterized as follows:
An object (which, as mentioned above, is called figure by Talmy) moves with respect to another object (the reference-object or ground) or it maintains its position in reference to it. In addition to figure and ground, the component path (the course followed by figure) is involved in a motion event; in the case of nonmotion, the site is occupied by figure. Further, the presence or absence of motion (move or be located) is involved, and Talmy points out that it is only the presence and the absence of motion which languages distinguish structurally.

In addition to these internal components, the component manner / cause can play a role in a motion event. The motion of the exponent can be caused by something or can take place in a certain way. Manner and cause constitute a distinct external event.

The terms figure and ground, taken from gestalt psychology, are defined slightly differently by Talmy. The figure is a moving object or a conceptually movable object whose path or occupied site is at issue. Ground is defined as a reference-frame, or a reference-point stationary within a reference-frame. The path and the site occupied by figure are characterized in relationship to the ground. (Talmy, 1985:60-61)

4.2 Lexicalization Patterns for Verb Roots

Talmy proposes three lexicalization patterns for verb roots, which form a typology. Every language uses only one of these three types to express motion in its most characteristic way. (Talmy, 1985:62)

‘Characteristic’ means here:

i) colloquial in style, rather than literary, stilted, etc.

ii) frequent in occurrence in speech, rather than only occasional

iii) pervasive rather than limited; that is, a wide range of semantic notions are expressed in this type.

4.2.1 Motion and Manner/Cause

Languages which use the first lexicalization pattern for verb roots code the superconcept of motion and manner/cause. (Talmy, 1985:62-64)
Manner or Cause conflated in the Motion verb

This lexicalization pattern is used by Chinese and all Indo-European languages except for the Roman languages.

Talmy gives these English examples:

Talmy (1985:62-63)

English expressions of Motion with conflated Manner or Cause

**be_L+Manner**

a. The lamp *stood/lay/leaned* on the table

b. The rope *hung* across the canyon from two hooks.

**move+Manner**

**non-agentive**

c. The rock *slid/rolled/bounced* down the hill

d. The gate *swung/creaked* shut on its rusty hinges

e. The smoke *swirled/squeezed* through the opening

**agentive**

f. I *slid/rolled/bounced* the keg into the storeroom

g. I *twisted/popped* the cork out of the bottle

**self-agentive**

h. I *ran/limped/jumped/stumbled/rushed/groped* my way down the stairs

i. She *wore* a green dress to the party

**move+Cause**

**non-agentive**
j. The napkin blew off the table
k. The bone pulled loose from its socket

agentive
1. I pushed/threw/kicked the keg into the storeroom
m. I blew/flicked the ant off my plate
n. I chopped/sawed the tree down to the ground at the base
o. I knocked/pounded/hammered the nail into the board with a mallet

Talmy points out that these sentences are straightforward for English speakers, but that there are languages in which none of the events expressed in these sentences can be coded as in English. The component manner/cause must be coded separately in a clause.

Such paraphrases which code motion and manner/cause separately are also possible in English.

Talmy (1985:63/64)
Unconflated paraphrases of English Motion expressions.

be_{L}+Manner

a’. (The lamp lay on the table=)
The lamp was-located on the table, lying there
b’. (The rope hung across the canyon from two hooks=)
The rope was-located (extended) across the canyon, hanging from two hooks

move+Manner

non-agentive
c’. (The rock rolled down the hill=)
The rock moved down the hill, rolling (the while)
d’. (The gate swung shut on its rusty hinges=)
The gate moved shut (=shut), swinging on its rusty hinges (the while)

agentive
f’. (I bounced the keg into the storeroom=)
I moved the keg into the storeroom, bouncing it (the while)
self-agentive

h'. (I ran down the stairs=)
   I went down the stairs, running (the while)
i'. (She wore a green dress to the party=)
   She went to the party, wearing a green dress (the while)

move+Cause

non-agentive

j'. (The napkin blew off the table=)
   The napkin moved off the table, from (the wind)
   blowing on it

agentive

l'. (I kicked the keg into the storeroom=)
   I moved the keg into the storeroom, by kicking it

n'. (I chopped the tree down to the ground at the base=)
   I moved the tree down to the ground, by chopping on it at the base

4.2.2 Motion and Path

The cocoding of motion and path in the verb root constitutes the second lexicalization pattern. In the case that the component manner/cause is coded in the same sentence, it must be coded in an independent constituent (e.g. an adverbial construction or a gerund construction) (Talmy, 1985:68-72).

Figure Motion Path Ground \{ Manner \} \{ Cause \}

\{ move \}
\{ be \_ \}

<surface verbs>

Path conflated in the Motion verb

Languages which use this lexicalization pattern are Romanic, Semitic and Polynesian languages.
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Talmy gives these Spanish expressions of Motion (non-agentive) with conflation of Path as examples:

Talmy (1985:69-70)

a. La botella entró a la cueva (flotando)
   the bottle moved-in to the cave (floating)
   'The bottle floated into the cave'

b. La botella salió de la cueva (flotando)
   the bottle moved-out from the cave (floating)
   'The bottle floated out of the cave'

c. La botella pasó por la piedra (flotando)
   the bottle moved-past the rock (floating)
   'The bottle floated past the rock'

d. La botella pasó por el tubo (flotando)
   the bottle moved-through the pipe (floating)
   'The bottle floated through the pipe'

e. El globo subió por la chimenea (flotando)
   the balloon moved-up through the chimney (floating)
   'The balloon floated up the chimney'

f. El globo bajó por la chimenea (flotando)
   the balloon moved-down through the chimney (floating)
   'The balloon floated down the chimney'

g. La botella se fue de la orilla (flotando)
   the bottle moved-away from the bank (floating)
   'The bottle floated away from the bank'

h. La botella volvió a la orilla (flotando)
   the bottle moved-back to the bank (floating)
   'The bottle floated back to the bank'

i. La botella le dio vuelta a la isla (flotando)
   (= 'moved around')
   'The bottle floated around the island'

j. La botella cruzó el canal (flotando)
   the bottle moved-across the canal (floating)
   'The bottle floated across the canal'
**CHAPTER 4. TALMY’S APPROACH**

k. La botella *iba* por el canal (flotando)  
   the bottle moved-along along the canal (floating)  
   'The bottle floated along the canal'

l. La botella *andaba* por el canal (flotando)  
   the bottle moved-about about the canal (floating)  
   'The bottle floated around the canal'

m. Las dos botellas *se juntaron* (flotando)  
   the two bottles moved-together (floating)  
   'The two bottles floated together'

n. Las dos botellas *se separaron* (flotando)  
   the two bottles moved-apart (floating)  
   'The two bottles floated apart'

### 4.2.3 Motion and Figure

The third lexicalization pattern for verb roots which form a typology is constituted by the cocoding of motion and figure (Talmy, 1985:72-76). 

<table>
<thead>
<tr>
<th>Figure</th>
<th>Motion</th>
<th>Path</th>
<th>Ground</th>
<th>Manner</th>
<th>Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>move</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>be_L</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;surface verbs&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Figure conflated in the Motion verb.

Talmy gives two English examples.  
(Talmy, 1985:73)

a. It *rained* in through the bedroom window (non-agentive)
b. I *spat* into the cuspidor (agentive)

A language which uses this lexicalization pattern in its most characteristic way to express motion is the polysynthetic language Atsugewi.
CHAPTER 4. TALMY'S APPROACH

The examples given by Talmy are verb roots which cocode the components motion and figure. (Talmy, 1985:73).

Atsugewi verb roots of Motion with conflated Figure

-\textit{lup}- 
'for a small shiny spherical object (e.g. a round candy, an eyeball, a hailstone) to move/be-located'

-\textit{i}- 
'for a smallish planar object that can be functionally affixed (e.g. a stamp, a clothing patch, a button, a shingle, a cradle's sunshade) to move/be-located'

-caq-
'for a slimy lumpish object (e.g. a toad, a crow dropping) to move/be-located'

-swal-
'for a limp linear object suspended by one end (e.g. a shirt on a clothesline, a hanging dead rabbit, a flaccid penis) to move/be-located'

-qput-
'for loose dry dirt to move/be-located'

-stač-
'for runny icky material (e.g. mud, mewure, rotten tomatoes, guts, chewed gum) to move/be-located'

Here, the verb roots obviously denote categories which are constituted by different criteria such as shape, consistency, function, and appearance. The verb roots refer to events which involve either the motion or locatedness of concrete entities which fulfill the category-establishing criteria denoted by the verb root. The motion/locatedness-component of the Atsugewi verb roots does not seem to have anything to do with the category-establishing criteria. One could, for example, speculate whether the verb root '-\textit{i}-'

-\textit{i}-
'for a smallish planar object that can be functionally affixed (e.g. a stamp, a clothing patch, a button, a shingle, a cradle's sunshade) to move/be-located'

means in its move-reading 'a movement which is executed when the entity which qualifies for the category referred to by the verb root is attached to a ground', and in its be-located-reading 'to be attached to a ground', respectively', as in 'to attach a stamp to a letter' and (of a stamp) 'to be attached to a letter'. If this were the case, \textit{the move/be located-component would be in a motivated relationship with the category-establishing criteria denoted by the verb root. This is exactly what is not the case. Thus the Atsugewi verb roots cocode, as proposed by Talmy, two components: the \textit{superconcept of motion} and the \textit{exponent of motion}; the consequence of this is that these
verb roots involve only restrictions concerning the exponent so that any motion/locatedness of the exponent is possible. The following chart presenting Atsugewi expressions of motion show that this is correct.

Atsugewi expressions of Motion with conflated Figure: (Talmy, 1985:74)

a.

<table>
<thead>
<tr>
<th>locative suffix:</th>
<th>-ik-</th>
<th>'on the ground'</th>
</tr>
</thead>
<tbody>
<tr>
<td>instrumental prefix:</td>
<td>uh-</td>
<td>'from &quot;gravity&quot; (an object's own weight) acting on it'</td>
</tr>
<tr>
<td>inflectional affix- set:</td>
<td>'- w- -a'</td>
<td>'3d person subject (factual mood)'</td>
</tr>
</tbody>
</table>

/'-w-uh-staʔ-ik-: -a/ → [wostaʔik-a]

Literal:

'Runny icky material is located on the ground from its own weight acting on it'

Instantiated:

'Guts are lying on the ground'

directional suffix:

b.

<table>
<thead>
<tr>
<th>-iɛt</th>
<th>'into liquid'</th>
</tr>
</thead>
<tbody>
<tr>
<td>instrumental prefix:</td>
<td>ca-</td>
</tr>
<tr>
<td>inflectional affix- set:</td>
<td>'- w- -a'</td>
</tr>
</tbody>
</table>

/'-w-ca-staʔ-iɛt-: -a/ → [wustaʔɪɛtə]

Literal:

'Runny icky material moved into liquid from the wind blowing on it'

Instantiated:

'The guts blew into the creek'

c.
CHAPTER 4. TALMY’S APPROACH

directional suffix: -cis 'into fire'

instrumental prefix: cu-

inflectional affix- s- ’w- -“/ ’I - subject, 3d person object (factual mood)’

Literal: /s-’w-cu-staʔ-cis-“/ \[stustaʔ\]a] 'I caused it that runny icky material move into fire by acting on it with a linear object moving axially'

Instantiated: 'I prodded the guts into the fire with a stick'

As the Atsugewi expressions presented in this chart show, it is further affixes (not the verb root) which modulate manner of motion. The readings: 'the guts are lying on the ground’ or 'the guts blew into a creek’ can be attributed to prefixes and suffixes.

4.2.4 Motion and Ground

Verb roots which code the components motion and ground do not establish a lexicalization pattern. Talmey gives the American English examples to emplane and to deplane, whose verb root plane has the meaning 'move with respect to an airplane’ without a path-component being cocoded in the verb root. In both examples path is specified by the prefix. For the cocoding of motion and ground to establish a lexicalization pattern, there should be more path specifications like transplane or circumplane and there should be more verb roots denoting motion with respect to a ground. Talmey suggests 'to house’ - 'move with respect to a house’ or 'to liquid’ - 'move with respect to a liquid’. Talmey concedes that it is not clear why the component ground does not form a major lexicalization pattern. Arguments which try to explain this by saying that the ground-component is the most constant one and does not need to be specified or by saying that the ground-component is the least relevant or cannot be identified do not really persuade. (Talmey, 1985:75)

Talmey suggests another type which exists sporadically: the cocoding of three components, namely motion, ground and path, as in the verb roots box and shelf. These verbs can be paraphrased, 'cause to move into a box’, and 'cause
to move onto a shelf’, respectively. In these cases the path component seems
to be restricted to ‘into/onto’.

Talmy suggests that here it is clear why this type does not form a lexicaliza-
tion pattern. The consequence of the cocoding of three and more components
would be an enormous lexicon. It is just more economical to make use of
combinatorial means when more than two components are involved. (Talmy,
1985:76)
Chapter 5

The Ontological Framework
(Zaefferer)

The ontological framework used within the analyses of the German, English and French exponent-shaped motion verbs in the chapters 7 to 9 has been developed by Zaefferer in order to have a "general framework for comparable descriptions of languages of any kind with the help of contemporary technology" (Zaefferer, 2007:193). As this ontology is only partially relevant for the analyses of exponent-shaped motion verbs, only the relevant parts will be presented and briefly explained here.

First, however, the question of why an ontology is considered to be an appropriate general framework for the comparable description of languages is answered briefly here. The comparable description of languages faces certain problems, one of which is the "comparability problem" (Zaefferer, 2007:194). Zaefferer names several comparability-related problems. Languages can not be compared directly, they have to be described first, and "as long as it is not clear that the terms used in the descriptions of different languages are the same, i.e. that they are based on the same cross-linguistically valid operationalizations, there is plenty of room for misanalysis" (Zaefferer, 2007:194). In addition to the terminology problem, there is the problem that whenever one tries to achieve general comparability across language types by standardizing language descriptions, there is the danger of forcing languages into a general framework in order to make the framework fitting. Closely related to this problem is the problem that some typologists emphasize the differences across languages, whereas others emphasize the commonalities (Zaefferer, 2007:195).

It is the definition of language itself which Zaefferer considers to be the
CHAPTER 5. THE ONTOLOGICAL FRAMEWORK (ZAEFFERER) 45

"deepest aspect of the comparability problem". He proposes a definition of language which sees "the essence of language (...) not in its means but in its ends," namely the definition that "a language is a general purpose unbounded mind sharing device." Thus comparable language description should not be based "on the similarity of (...) the means (of languages) but on their global functional equivalence" (Zaefferer, 2007:195-196).

Zaefferer sees the different languages that have evolved as solutions to the problem of how one mind can be enabled to share unlimited mental content with other minds (Zaefferer, 2007:196). As far as the concept of mind sharing is concerned, it is suggested that mind sharing involves "two levels on which a given content can be said to be shared by two or more minds" (Zaefferer, 2007:196).

"The first one is the dispositional level on which there are time-stable representations of categories and concepts that are largely equivalent across minds. On this level mind sharing is concept sharing. The second one is the manifestation level and contains behavior that is based on these representations of categories and concepts. Mind sharing on this level is concept activation sharing. In order to find out about the first level one has to go through the second: A necessary condition for concepts to be shared by (or type-identical across) several minds and a central indicator for this condition to hold is parallel behavior in the task of distinguishing phenomena that fall under the given concept from others that do no" (Zaefferer, 2007:196-197).

Zaefferer concludes from this that

"(...) the possession of a common language requires the possession of a shared system of concepts (disposition) and the communicative use of a language requires the coactivation of concepts and conceptual structures from this system (manifestation). Obviously the possession of a system of concepts or ontology is logically and therefore also phylo- and ontogenetically prior to the possession of a language" (Zaefferer, 2007:197).

These considerations lead to the positions that language should be conceptualized "from the end’s end, so to speak, (...) not from its form but from its content" and that the "individual languages (should be viewed not) as posing
decoding problems, but rather as different solutions to roughly the same coding problem” (Zaefferer, 2007:196). So comparable cross-linguistic research should be based on the encoding or onomasiological perspective rather than the decoding or semasiological perspective. Onomasiological cross-linguistic research requires a "precise representation of concepts and conceptual structures" (Zaefferer, 2007:198). The following “general ontology of everyday life that includes most of the concepts and categories that are currently used in linguistics under such labels as aspectuality and others” (Zaefferer, 2007:198) is proposed by Zaefferer as a general framework for the comparable description of languages. This ontology differs from philosophical ontologies in not being guided by parsimony, namely the question of which categories are required, but by common sense, namely the question of which categories are useful. In other words, the ontology “aims to model the conceptual structures that have evolved in the natural history of the human mind and these are restricted only by their usefulness for everyday life” (Zaefferer, 2007:199). As "every human language allows its users not only to speak about nonlinguistic but also about linguistic phenomena,” Zaefferer introduces a domain ontology of linguistic phenomena which is not a separate system but is “embedded in a reentrant and recursive way into the general ontology of everyday life” (Zaefferer, 2007:198).

Within the general ontology of everyday life, it is only the node external entity which is of relevance to the analyses of the exponent-shaped motion verbs. Thus, this part of the ontology will be briefly explained. For the whole ontological framework, see Zaefferer (Zaefferer, 2007:201-221). The node ‘external entity’ involves entities "which are located entirely outside anybody’s mind", in contrast to ‘mental entities’ which "are located entirely inside some mind or minds" and external-mental hybrids "with a location that includes outside and inside portions” (Zaefferer, 2007:202-203).

1. External entity (outside any mind)
   
   (a) Situation
      
      i. Exclusive situation (container; inherently bounded)
      ii. Inclusive situation (situation without its content)
   
   (b) Inventory
      
      i. Individual (situation including its content)
         (content; primarily spatial meronomy)
         (inherently space-bounded, question of completeness central)
         A. Absolute individual (meronomically free)
CHAPTER 5. THE ONTOLOGICAL FRAMEWORK (ZAEFFERER) 47

B. Relational individual (meronomically bounded)
   a) Super-individual (meronomically superordinated)
   b) Sub-individual (meronomically subordinated)
ii. Individuation (not inherently space-bounded question of completeness periphery, homogenous)
   A. Substance (non-atomic)
   B. Collection (atomic)
(c) Eventity (content; primarily temporal meronomy)
i. Characteristic (not inherently time-bounded)
   A. Property (inalienable)
   B. Stage (alienable)
      a) Static stage (force required for termination)
         State
      b) Dynamic stage (force required for maintenance)
         Activity
ii. Transition (stage changing) (doubly time-bounded change)
   A. Transitional event: (not extended)
      Achievement
   B. Transitional process: (extended)
      Accomplishment
iii. Transient (stage preserving) (doubly time-bounded interlude)
   A. Transient event: (not extended)
      Semelfactive
   B. Transient process: (extended)
      Intergressive

The three nodes on the next level of specificity are the node situation, the node inventory and the node eventity. The node situation, with its two daughters exclusive situation and inclusive situation, is defined as follows:

"A situation is conceived of as a spatiotemporally coherent container with inherent boundaries. An external situation can be something very big like our universe from the Big Bang until today or something rather modest in size such as my office this afternoon. Being conceived as containers, situations can be viewed exclusively" (the daughter exclusive situation), "abstracting away from their contents, or inclusively" (the daughter inclusive situation) "together with their contents. The content of a situation
CHAPTER 5. THE ONTOLOGICAL FRAMEWORK (ZAEFFERER) 48

consists of its inventory entities (...) and the events (...) that take place or are instantiated in it" (Zaefferer, 2007:202).

The terms for the nodes Inventory and Event are shorthands. The term Inventory is a shorthand for the above mentioned inventory entities which subsume "individuals and other entities" and the term Event is a shorthand for the above mentioned events, which subsume "events or similar entities" (Zaefferer, 2007:202).

The daughters of the node Inventory are the nodes individual and dividual. For individuals the "question of completeness is central", whereas for dividuals it is not. Individuals are subdivided into absolute individuals, "which are meronymically free, autonomous, so to speak", e.g. 'a hat', and relational individuals, "which are meronymically bound to either their constituting subindividuals or to some super-individual they constitute", e.g. 'a pair of shoes' (...) (super-individuals) (or) 'a single shoe' (...) (sub-individuals)" (Zaefferer, 2007:204).

The daughters of the node Event are the nodes characteristic, transition and transient. The node characteristics subsumes on the next level of specificity the daughters properties and stages, the node transition, the daughters transitional event and transitional process, with the nodes stage, transitional event and transitional process representing "the well-known Aristotle-Ryle-Kenny-Vendler categories", namely states, activities, achievements and accomplishments. The third daughter of the node Event, the node transient, involves "events and processes which are - as properties, the first daughter of the node characteristic "not conceptualized as leading from an anterior to a posterior characteristic (...), and that are sometimes called semelfactives or ingressives" (Zaefferer, 2007:204-205).
Chapter 6

A Theory of Exponent-Shaped Motion Verbs

6.1 Exponent-shaped motion verbs are manner verbs

The vast majority of the verbs examined in this investigation are manner verbs, i.e. they code the component motion and a manner-component (e.g. 'to snake', 'to worm'). This means that the verb does not imply that the exponent denoted by the noun base is in motion; the exponent of motion has to be coded explicitly. A small group of verbs differs semantically from the Atsugewi verb roots proposed by Talmy in cocoding three components instead of two in the verb root. These three components are: the component motion, the component exponent and a manner-component (e.g. 'to hail', 'to snow', 'to storm'). This holds true also for the two verbs 'to spit' (eject saliva forcibly from one's mouth: OED, 2002) and 'to rain' (rain falls: OED, 2002), which Talmy gives as examples for English verb roots cocoding the components motion and exponent (Talmy, 1985:73). These two verbs also cocode, in addition to the components motion and exponent, a third component, a manner-component. Here, the verb implies that the exponent denoted by the noun base is in motion; the exponent of motion does not have to be coded explicitly.
CHAPTER 6. A THEORY OF EXPONENT-SHAPED MOTION VERBS

6.1.1 Onomasiological lexicology (Zaefferer)

As shown by Talmy, monomorphemic codings of motion events tend to cocode the superconcept of motion and exactly one further component, path or manner / cause or exponent or - rarely - ground. Zaefferer proposes in (Zaefferer, 2002:8):

"Let us say that in such a case this conceptualization of a motion event is shaped by the factor in question, be it an obligatory or an optional one. Codings of such conceptualizations may be transparent or opaque with respect to this shaping." (Zaefferer, 2002:8)

Examples given by Zaefferer (Zaefferer 2002:8)

<table>
<thead>
<tr>
<th>cause-shaped caused motion</th>
<th>example</th>
<th>transparency</th>
</tr>
</thead>
<tbody>
<tr>
<td>instrument-shaped caused motion</td>
<td>hand, shovel</td>
<td>transparent</td>
</tr>
<tr>
<td>cause-shaped effecting motion</td>
<td>sweep</td>
<td>opaque</td>
</tr>
<tr>
<td>path-shaped motion</td>
<td>rise</td>
<td>opaque</td>
</tr>
<tr>
<td>direction-shaped motion</td>
<td>enter</td>
<td>opaque</td>
</tr>
<tr>
<td>goal-shaped motion</td>
<td>exit</td>
<td>opaque</td>
</tr>
<tr>
<td>source-shaped motion</td>
<td>pass</td>
<td>opaque</td>
</tr>
<tr>
<td>manner-point-shaped motion</td>
<td>crawl</td>
<td>opaque</td>
</tr>
<tr>
<td>exponent-shaped motion</td>
<td>rain</td>
<td>transparent</td>
</tr>
</tbody>
</table>

Zaefferer proposes that "it turns out that the concept of RAIN as coded by the English verb to rain and its counterparts in many languages is a transparent exponent-shaped concept paraphrasable as 'to do what the inventory rain prototypically does'" (Zaefferer, 2002:8).

6.2 The nominal and the verbal concept: inventory and basic eventity

Concepts in natural languages are not scientific definitions. Thus, as a starting point, we make use of dictionary definitions (which in many cases could more precisely be called characterizations), first, of the entity denoted by
CHAPTER 6. A THEORY OF EXPONENT-SHAPED MOTION VERBS

the noun which is the base for the denominal motion concept - ontologically spoken, the *inventity*, and second, the entity which is denoted by the verb in its most literal reading, the reading *to move as the exponent denoted by the noun base* - ontologically spoken, the *eventity*. The dictionaries used are, for German: Duden, Deutsches Universalwörterbuch (1989), for English: Concise Oxford English Dictionary (2002), and for French: Le Robert Micro Dictionnaire de la Langue Française (1998) and Le Robert Dictionnaire Historique de la Langue Française (2002), respectively. As far as the conceptual relationship between *inventity* and *basic eventity* is concerned, - the term *basic eventity* will be used for the noncausative, intransitive reading - the verbs can be divided into two groups. The first group is comprised of verbs with circular definition between *inventity* and *basic eventity*; this is not the case for the second group. First, however, let us look at the groups of exponents whose way to move gave rise to a motion concept denoted by a denominal verb.

### 6.2.1 The groups of exponents

The following groups of exponents were found in the three languages:

**Geometrical Bodies:** e.g. German: Rolle (roll), Kugel (sphere), Ei (egg);

**Moved Objects:** e.g. German: Schaukel (swing), Wippe (seesaw), Wiege (cradle), Pendel (pendulum), Kreisel (spinning top); English: seesaw, shuttle; French: bascule (scales);

As far as the exponents Schaukel, Wippe and seesaw are concerned, one could object that this is not exponent-shaped motion but instrument-shaped motion. This is true for the verbs’ most literal reading. Here, the exponents Schaukel, Wippe and seesaw are used as instruments when set into motion. These exponents are included in this investigation because they gave rise to motion concepts which do not depend on the Schaukel, Wippe or seesaw as instruments.

**Animals:** e.g. German: Schlange (snake), Robbe (seal), Wiesel (weasel), Krebs (crayfish, crawfish); English: snake, worm; French: fourmi (ant), papillon (butterfly);

**Social Types:** e.g. German: Vagabund (tramp), Pilger (pilgrim); French: vagabond (tramp);
CHAPTER 6. A THEORY OF EXPONENT-SHAPED MOTION VERBS

Formations I: e.g. German: Tropfen (drop), Wirbel (whirlpool, eddy), Strom (large river); English: spray, storm, gust, eddy, stream;
The group of exponents Formations I covers air and water formations.

Formations II: e.g. English: throng, flock, herd, parade; French: parade (parade);
The group of exponents Formations II covers formations consisting of many exponents of the same kind (which are, ontologically spoken, collections).

Rainfall, Snowfall, Hail: e.g. German: Regen (rain), Hagel (hail); English: rain, hail, snow;

6.2.2 Circular v.s. noncircular definition between inventory and basic eventity

As mentioned above, exponent-shaped motion verbs can be divided into a smaller group of verbs with circular definition between inventory and basic eventity and a larger group of verbs with noncircular definition between inventory and basic eventity. For verbs of the first group, it holds true that the nominal concept is defined by the verbal concept and vice versa. *Inventory* and *basic eventity* imply each other (e.g. English: 'rain’/’to rain’, German: 'Regen’’/’regnen’).

The OED (2002) offers the following definitions:

```
inventory            rain
eventity             to rain

rain: the condensed moisture of the atmosphere falling visibly in separate drops.
to rain: rain falls
```

```
inventory            Regen
eventity             regnen
```

The Duden (1989) offers the following definitions:

```
Regen: Niederschlag, der in der Form von Wassertropfen zur Erde fällt.
regnen: (von Niederschlag) als Regen zur Erde fallen.
```

In some cases of circular definition, the concept denoted by the noun is ontologically hybrid, i.e. it has inventory-character as far as the exponent involved is concerned and it has eventity-character as far as the the motion
CHAPTER 6. A THEORY OF EXPONENT-SHAPED MOTION VERBS

aspect is concerned. As Zaefferer states in (Zaefferer, 2002:9), it is not only possible to say

*The rain was warm. (inventitiy-reading of the noun 'rain') and
The rain lasted three hours. (eventitiy-reading of the noun 'rain'),
it is even, without a zeugma effect, possible to say:
*The rain was warm and lasted three hours.

The same holds true for German: it is not only possible to say

*Der Regen war warm. (inventitiy-reading of the noun 'Regen') and
Der Regen dauerte drei Stunden. (eventitiy-reading of the noun 'Regen'),
it is, as in the case of the English examples, without a zeugma effect, possible to say:
*Der Regen war warm und dauerte drei Stunden.

Interestingly, there are noun–verb pairs dealt with in this investigation which imply each other exactly in the way the noun–verb pairs 'rain’/’to rain’ or 'Regen’/’regnen’ do (e.g. the noun–verb pair 'spray’/’to spray’). The noun 'spray’ implies the motion concept denoted by the verb 'to spray’ and the verb 'to spray’ implies the water formation denoted by the noun 'spray’. The noun, however, does not admit sentences expressing duration:

*The spray lasted three seconds.

This means that the concepts denoted by these nouns are, despite the fact that they imply a motion concept, ontologically not hybrid. The entities which are denoted by them must be classified as inventities and can not be classified as eventities.

For the second group it holds true that the definition of the verbal concept is dependent on the nominal concept; the definition of the nominal concept, however, is independent of the verbal concept (e.g. German: Rolle/ rollen, Tropfen, tropfen)
The Duden (1989) offers the following definitions:
CHAPTER 6. A THEORY OF EXPONENT-SHAPED MOTION VERBS

inventivity Rolle

eventivity Rollen

Rolle: zylindrischer Körper mit kreisförmigem Querschnitt
rollen: sich unter fortwährendem Drehen um sich selbst (fort)bewegen

inventivity Tropfen

eventivity tropfen

Tropfen: kleine Flüssigkeitsmenge von kugeliger oder länglicher Form
tropfen: in einzelnen Tropfen herunterfallen

- the motion concept denoted by verbs with circular definition between inventivity and basic eventivity is: to move the way in which the exponent denoted by the noun base moves.

- the motion concept denoted by verbs with noncircular definition between inventivity and basic eventivity is: to move the way in which the exponent denoted by the noun typically moves.

What is important here is the fact that verbs of the first group denote an exponent’s only way to move, whereas for the second group it can be said that there are several ways in which the exponent moves, but only one way to move is lexicalized in the verb. (The only exceptions are the exponents ‘Schaukel’, ‘Wippe’, ‘Wiege’, ‘seesaw’ and ‘balance’, which are designed to move in a certain way).

6.2.3 The manner-component is the exponent’s prototypical way to move

As the manner-component of exponent-shaped motion verbs with circular definition between inventivity and basic eventivity is an exponent’s only way to move, the title statement makes sense only for verbs with noncircular definition between inventivity and basic eventivity because when there is no alternative, there cannot be prototype formation.

The understandability of an exponent-shaped motion verb depends on a language community’s convention of relating the motion concept denoted by the
verb in a characteristic or prototypical way to the exponent denoted by the noun base.

The verbal concept must have salience or centrality character within the nominal concept. How can salience effects and centrality effects, respectively, be explained? Before these questions can be answered for the group of exponent-shaped motion verbs, Geeraerts’ explanation for the phenomenon of prototype formation, which is suggested in the publication Where does prototypicality come from?, (Geeraerts, 1988:207-229) is briefly outlined.

As a starting point, Geeraerts emphasizes the importance of prototype theory, which he sees as at the core of the cognitive paradigm, especially, as far as lexical semantics is concerned, because the notions gradience and salience play a central role in the description of semantic structure. He refers to the experiment-based work of Rosch (1973) and Labov (1973), which has shown the importance of the notions graduality and vagueness to the description of word meaning. Geeraerts asks how these phenomena can be explained and suggests four hypotheses:

a) the physiological hypothesis

b) the referential hypothesis

c) the statistical hypothesis

d) the psychological hypothesis

The physiological hypothesis was proposed by Rosch (1973), who dealt with the question of which role prototypicality effects play in the naming of colors. Certain colors are focal colors because the human eye is especially sensitive to certain frequencies of light. Here, prototypicality is the result of the physiological basis of human perception. Geeraerts suggests that only phenomena which have something to do with perception can be explained physiologically.

The referential hypothesis is based on the idea that prototypicality effects come from certain members of a category which share more properties than other more peripheral members which do not have much in common. This is the family resemblance model of prototypicality. It proposes that “prototypicality results from the fact that some instances of a category share more attributes with other instances of the category than certain peripheral members of the category” (...) (Geeraerts, 1988:208).

The statistical hypothesis is based on the idea that prototypicality has something to do with how often one is exposed to an entity. The entity to which one is exposed the most often is the prototype of a category.
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The psychological hypothesis is based on the idea that prototypicality has something to do with the functioning of cognition. It is more economic and thus an advantage for human cognition to maximize the conceptual width of a category by incorporating nuances which are conceptually close in a single concept.

Geeraerts wants to show that only the psychological hypothesis can explain the phenomenon of prototypicality on the basis of the development of prototypicality effects in the Dutch synonyms vernieLEN and vernIETigen. The Dutch synonyms vernieLEN and vernIETigen, which both roughly have the meaning to destroy, are of different origin. The earliest attestation of vernieLEN, whose original meaning is to throw down to the ground, to tear down, goes back to the medieval ages. VernIETigen is the younger form and is attested from the sixteenth century onward. Its literal meaning is best translated as to annihilate, to bring to naught (Geeraerts, 1988:209). Geeraerts’ investigation of the development of the meaning of both verbs covers a period of about 120 years (1890 - 1910). First, Geeraerts states that vernieLEN and vernIETigen are synonyms insofar as both verbs are used in the same contexts, i.e. in contexts which deal with the destruction of concrete objects such as buildings, artifacts, and natural objects; in contexts which deal with the destruction of abstract things, i.e., hopes or plans; as well as in contexts which deal with the killing of people. Both the verb vernieLEN and the verb vernIETigen "express the notions of complete destruction and partial damage, that is to say, the complete removal out of existence of something or someone, and the less drastic undermining in some respect, of the existence of people or objects" (Geeraerts, 1988:214).

Geeraerts states, however, that both verbs have a centrality effect insofar as vernIETigen is more often used in abstract contexts compared to vernieLEN, whereas vernieLEN is more often used in concrete contexts compared to vernIETigen. The prominent area of each verb has certain specifications which the corresponding (peripheral) area of the other verb does not have. Geeraerts attributes this centrality effect to the etymology of the two verbs.

How can this prototypicality effect be explained? As only prototypicality phenomena which have something to do with perception can be explained by the physiological hypothesis, this hypothesis cannot provide an explanation. An explanation based on the referential hypothesis can be ruled out since both verbs refer to the same actions and events. According to the statistical hypothesis, an explanation would be based on the idea that prototypicality phenomena are triggered by how often something, i.e. an object, an event or an action, occurs in reality. In the case of vernieLEN and vernIETigen, this cannot be an explanation because both verbs are equally influenced by relevant
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actions and events such as the destruction of buildings, the killing of people, or the cancellation of appointments. Geeraerts comes to the conclusion that as far as the prototypicality effects in the verbs *vernielen* and *verwieligen* are concerned, the structure of reality does not provide an explication. However, Geeraerts concedes that it cannot be ruled out that the structure of reality has an influence on prototypicality effects. The prototypicality effects in the two Dutch verbs can - according to his view - only be explained by the *psychological hypothesis*, which is based on the idea that cognition draws an advantage from prototypicality. This is because prototypically organized categories provide the possibility to deal economically with a high density of information.

The hypotheses proposed by Geeraerts introduce (the physiological hypothesis left aside) the structure of reality with the referential and the statistical hypotheses on the one hand, and cognition with the psychological hypothesis on the other hand. Can the structure of reality or cognition or both be made responsible for prototypicality effects?

Without denying the organizing role of cognition, it is argued here that the structure of reality can be made responsible for prototypicality effects. It can be doubted whether reality can be taken into account only in the form of statistical frequency. As far as exponent-shaped motion verbs are concerned, a certain way to move is considered to be an exponent’s prototypical way to move, and the fact that this is the case seems to have something to do with the structure of reality. The snaking movement is prototypical for a snake and this is independent from the number of snakes which exist in a certain area and it does not depend on how often one sees a snake snaking.

6.3 The Four Levels of Abstraction

6.3.1 *Eventity I*: to move as the exponent

The motion concept denoted by the exponent-shaped motion verb in its most literal reading is to move as the exponent denoted by the corresponding noun base. This motion event is called *eventity I*. The exponent denoted by the noun base is called *inventory I*. As the exponent’s only way to move or the exponent’s typical way to move is the most literal reading of the verb, the motion event called *eventity I* is identical to the *manner* component, coded in the verb in addition to the component *motion* and the components *motion* and *exponent*, respectively. The movement involved in this motion concept
can always be executed by the exponent denoted by the noun base and is linguistically expressed in the **cognate-subject construction** (intransitive reading) and the **cognate-object construction** (transitive reading). The following German, English and French examples were found:

**cognate-subject construction:**

Dieses tanzende *Ei* ernt lustig auf dem Wagen hin und her, wenn er durch die Gegend gezogen wird.
(http://www.toys48.de/katalog/Zwerg/Body_zwerg.html, accessed on October 14 2007)

Zeigt die Verlängerung des Fadens vor diesen Punkt, *rollt* die *Rolle* weg, zeigt sie auf diesen Punkt, rutscht sie, zeigt sie dahinter, *rollt* sich der Faden auf und die *Rolle rollt* heran.
(http://www.wundersammelsurium.de/Mechanisches/Garnrolle/index.html, accessed on September 15 2007)

Vielleicht schaffen sie es, dass alle *Kreis* kreisen.
(http://www.schule.schweinfurt.ch/gallery2/math.php?g2_itemId=2436, accessed on October 14 2007)

Das Pendel *pendelt* dicht über dem Boden und schien dabei langsam seine Richtung zu ändern.

The end of the toilet paper stayed right by my feet while the rest of the *roll rolled* underneath the stall door and headed on out into the main part of the bathroom at a very high rate of speed.
(http://www.empress.buzzstuff.net/archives/004728.php, accessed on October 21 2007)

The total distance that the *roll rolled* was measured using a wheel-stick; again, because it looked good and made others think we were hard-working scientists.
(http://www.null-hypothesis.co.uk/null-hypothesis_bestof.pdf, accessed on October 21 2007)

Les papillons *papillonnent*, impressionnés par le tapis de Gilda.

**cognate-object construction:**

*Kugel* die *Kugel* zum Ziel!
(http://www.atariwelt.de/downloadbereich/spiele/jum_run/index.html, accessed on October 14 2007)
As there is redundancy in cognate-subject- and cognate-object constructions, they are problematic and rarely uttered. Formulations with a modified cognate subject or cognate object are less problematic because there is less redundancy (Pustejovsky, 1995:191). The following sentence involves a modified cognate object.

...entirely unprepared for this, thus far into their own country, and were engaged in herding the great herd of Gilsland cattle across the Dornock Water’s estuary... (BNC)

Also unproblematic are formulations which make use of alternative expressions such as names, paraphrases or other lexemes to refer to the exponent. This is the case in the following German, English and French examples:

Dort schlängelte sich nämlich eine etwa einen halben Meter lange Tiger-Python. (IDS-Korpus)

Mutmaßungen wurden angestellt, weil die Kiste, aus der sich das Reptil geschlängelt haben soll, zuletzt unauffindbar war. (IDS-Korpus)

The subtle serpent was snaking his way through God’s garden, seeking his own kind of prey.

(http://www.factsandthoughts/genesis5.html, accessed on October 14 2007)

A glacial river streamed out from the cave.

(http://willdoherty.org/wordpress/?m=200607, accessed on October 21 2007)

Parfois les rivières ruissellent et roulent en roucoulant.

(http://www.leahi.net/french/files/III-09%20R.doc, accessed on October 14 2007)

Les fleuves de la côte de Tetuan, alimentés par les aquifères de la dorsale calcaire ruissellent en été, même si les débits d’étiage sont faibles.

(http://www.rifweb.free.fr/Fr/Rif/Milieu.htm, accessed on October 14 2007)

6.3.2 Eventity II: to move like the exponent

For the second level of abstraction, it holds true that the motion concept denoted by the verb is executed by an exponent other than the exponent denoted by the noun base. This motion event is called eventity II. The exponents involved are called inentity II. The manner-component is not modified. The consequence is that, for this abstraction level, the manner-component establishes restrictions as far as the exponents are concerned, so that the exponents
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which qualify for *eventity II* move *like* the exponent denoted by the noun base. The restrictions established by the unmodified *manner*-component can, for example, concern shape or consistency. Here are two examples:

nominal concept: 'roll', verbal concept: 'to roll'

**eventity I:**

The end of the toilet paper stayed right by my feet while the rest of the *roll rolled* underneath the stall door and headed on out into the main part of the bathroom at a very high rate of speed.

(http://www.empress.buzzstuff.net/archives/004728.php, accessed on October 21 2007)

The total distance that the *roll rolled* was measured using a wheel-stick; again, because it looked good and made others think we were hard-working scientists.

(http://www.null-hypothesis.co.uk/null-hypothesis_bestof.pdf, accessed on October 21 2007)

**eventity II:**

...the apples *had rolled* everywhere, gathering bruises and fluff. (BNC)

Fresh *barrels* of ale and wine were *rolled* from the cellars.

(http://www.framenet.icsi.berkeley.edu/.../displayReport, accessed on October 14 2007)

I mean, why reinvent the *wheel if it rolls*? (BNC)

The dog used so much force, the man *rolled* down the embankment to Bolivar Street...

(http://www.geocities.com/Heartland/Hills/1496/stoughbr.htm, accessed on December 26 2007)

An unmodified *manner*-component of the 'to roll'-*eventity* establishes shape restrictions insofar as the surface of the object that rolls has to be in constant contact with the *ground* while revolving. A book or a guitar, for example, do not have the shape properties which are necessary to execute the 'to roll'-*eventity* with an unmodified *manner*-component. Another example for exponent-related restrictions established by the *manner*-component is the English noun-verb pair 'stream'/'to stream'.

nominal concept: 'stream', verbal concept: 'to stream'


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**Eventity I:**

A fordable river *streamed* along the way of the invading Graeco-Bactrians on their left flank. (http://www.imarthagi/an.de/040108_vsGraecoBactrians.html, accessed on October 21 2007)

**Eventity II:**

The tea *streamed*, honey-gold from a blue pot... (BNC)
Bellot retired, blood *streaming* from a head wound. (BNC)
Condensation was *streaming* down the windowpanes, so he wiped one dry with his shirt-cuff to gain a... (BNC)

An unmodified manner-component of the 'to stream'-eventity requires liquid exponents.

### 6.3.3 Eventity III: hyperbole concepts

On the third abstraction level, the manner-component is modified. It is often the case that not only one but several modifications of the manner-component are lexicalized. This motion event, which is called *eventity III*, involves, in addition to the component motion, a modified manner-component and - with a few exceptions in which abstraction level III involves the same exponent which qualifies for the manner-component on abstraction level II - an exponent other than the exponent devoted by the noun base and other than the exponents that qualify for eventity II. These exponents are called inventity III. There are, for example, three modifications of the manner-component of the French verb 'balancer' (nominal concept: 'balance', verbal concept: 'balancer'), which lies in the alternating up and down movement of the scale pans. These are:

An exponent's oscillating movement which describes a concave, arc-shaped path around its center of gravity, for example,

**Eventity III:**

le berceau *balance* dans leurs douces prières. (FRANTEXT)
Le blanc muguet, se *balançait* dans le vent. Le ciel riait, l'oiseau chantait comme avant.
(http://www.frnusique.ru/texts/g/gignac_fernand/tendrement.htm, accessed on October 21 2007)
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An exponent’s oscillating movement which describes a convex, arc-shaped path that is not around the exponent’s center of gravity, for example,

**entity III:** (causativized reading)

Faut dire que j’avais en tête la vidéo de Michael Jackson qui *balance* son bébé au-dessus d’un balcon.

Aujourd’hui on médicalise la grossesse et la naissance, ensuite on *balance* l’enfant dans la crèche.

A motion event in which an exponent, which is hung up and moves freely, swings to and fro, for example,

**entity III:**

Les cloches se *balancèrent* mais aucun tintement ne se fit entendre.
(http://members.aol.com/heurte/4dis.htm, accessed on October 14 2007)

6.3.4 Entity IV: metaphorical concepts

On the fourth abstraction level, there has been a change into an abstract domain; thus we do not have a concrete motion event any more; the motion event is - as Talmy calls it (Talmy, 2003:99-177) - fictive. (Some German, English and French examples for fictive motion are given below in 6.5.) This fictive motion event is called entity IV or abstract event. The exponents involved can be either concrete or abstract, and are called *inventity IV*. Metaphorical concepts can either be motivated by the manner-component, the modification of the manner-component, or one of the modifications of the manner-component.

The abstract motion concept of the French verb *fourmiller* is motivated by the unmodified manner-component of the ’fourmiller’-event, which expresses the overall impression of many ants executing numerous small movements.
abstract entity:

Et le regard, errant avec laisser-aller devant lui, comme il sied aux anciennes peintures, fourmille de pensers enormes d' aventures. (FRANTEXT)
Si quelqu'un émettrait devant lui une de ces pensées d'égoïsme dont notre pauvre monde fourmille et sans lequel il n'existerait pas, sans se soucier de la qualité de cette personne, ni des égards que sa famille pouvait lui devoir, il lui montrait sur le champ un éloignement invincible, et rien ne l'eût décidé à lui faire le moindre accueil. (FRANTEXT)
Soluna diversifie ses offres et fourmille de projets. Elle offre depuis peu la possibilité aux jeunes de louer une salle du centre pour organiser une...
(http://www.monthly.ch/image/mmv/publication03/mmv_03_04_services.pdf -, accessed on October 21 2007)

In the following German and English examples, the abstract motion concept is motivated by a modification of the manner-component of the 'rollen'-eventity and the 'to roll'-eventity, respectively. In both cases the abstract concept is motivated by the hyperbole concept of rolling waves.

abstract eventity:

Die Konkurswelle rollt.
Seit gestern rollt eine beispiellose Welle der Hilfsbereitschaft für die Hinterbliebenen der verschütteten Bergleute und die Ortsbewohner, die ihre Häuser verloren haben oder verlassen mussten. (IDS-Korpus)

abstract eventity:

The mood spread backward, rolling down the room like a tidal wave of hostility.

6.3.5 Realization and relevance of the four levels of abstraction

As far as the realization of lexicalized readings of the exponent-shaped motion verbs is concerned, there are verbs whose only lexicalized reading is: to
move as the exponent denoted by the noun base. Their manner-component remains unmodified and exponents other than inentity I do not qualify, as in German: nominal concept: 'Tropfen', verbal concept: 'tropfen'; or French: nominal concept: 'goutte', verbal concept: 'gutter'; i.e., exponents other than drops cannot drip. (In the case of the German verb 'tropfen', metaphorical uses were found, but these examples are ad hoc uses).

Second, there are verbs with lexicalized readings on the levels of abstraction I, II and - partly - IV, which means that the manner-component remains unmodified but exponents other than inentity I qualify. There are no hyperbole concepts. The abstract entity is interpreted in terms of entity I and II, i.e. in terms of the manner-component. An example is: English: nominal concept: 'spray', verbal concept: 'to spray'.

**entity I:**

I also looked around the corner and saw the waves breaking up against the deck and water *was spraying* up against the deck boards like fountains.  
(http://www.atl.gc.ca/weather/hurricane/juan/mahonebay_e.html, accessed on October 14 2007)

**entity II:** (causativized reading)

....viewed as sumptuously well away from the enemy, making brief sorties to *spray* their bombs indiscriminately over both lines. (BNC)  
Balor snatched great handfuls from the pack and crammed them into his mouth, *spraying* crumbs everywhere, letting grease dribble down his chin. (BNC)  
The big truck shuddered to a halt, *spraying* gravel from under his locked wheels, as Rocky tramped down hard on the... (BNC)  
He unslung the machine-gun and *sprayed* the bullets into the trees, sending his hunters scattering for cover. (BNC)

**abstract entity:** (causativized reading)

As usual, he *sprayed* statistics around but Budget 2007, which will no doubt garner favourable headlines, was curiously empty of immediate substance for...  
'But - look', – David was beginning to spray ideas around the small office in his enthusiasm... (BNC)
... we discovered your football club, Saturday afternoons for me and my mates meant spraying rude words on the side of the Co-op or hijacking shopping trolleys. (BNC)

Third, there are verbs with no lexicalized readings on the levels of abstraction I and III, as with the French verb fourmillier. Here, the way in which ants move establishes the manner-component, but, according to Le Robert, Dictionnaire de la langue Française (2000), the verb fourmillier has never referred to what ants do. It is rather the case that the conciseness of the manner-component makes the verb fourmillier an appropriate means of expression when referring to analogue concrete and abstract scenarios (levels of abstraction II and IV).

*eventity II:*

...une forêt malsaine, au sol humide, où les reptiles fourmillent. (FRANTEXT)
...même quand le soleil la précise et l’achève et vient la regarder en face, même au jour, même quand les passants fourmillent à l’entour, d’une crainte secrète elle reste vêtue, elle est funèbre encore. (FRANTEXT)

*abstract eventity:*

Même en pleine canicule, les idées fourmillent.
(http://www.innovationpratique.com/2006/09/22/, accessed on October 14 2007)
Ce sont des données qui fourmillent dans de très nombreuses théories et applications sociales, ayant pour principale caractéristique de ne pas être... (http://www3.fnac.com/advanced/book.do?isbn=978-2-7007-2427-1&Origin=PASSAGE_DULIVRE&OriginClick=yes, accessed on October 14 2007)
Les mots me manquent alors que les émotions fourmillent. Une nuit a passé depuis le concert mais j’y suis encore. (http://www.forum-divinenolwenn.com/topic8407.html, accessed on October 21 2007)

Fourth, there are verbs with no lexicalized concept on abstraction level II. Here, the only concrete exponent which qualifies for the manner-component
is the exponent denoted by the noun base. An example are the verbs 'to parade' and its German and French counterparts. Only military parades qualify for the manner-component of the 'to parade'-eventity, which lies in the element that troops march and display officiality and military and political power.

Fifth, there are verbs with no lexicalized readings on the levels of abstraction I and II. This means that the manner-component is for all the uses modified. An example is the German verb 'hechten' whose manner-component lies in the element that a pike leaps out of the water arcing into a headlong dive.

Sixth, there are verbs which have lexicalized readings on all four levels of abstraction with often more than one modification of the manner-component. As mentioned above, abstract concepts can be motivated by either the manner-component or by the modification or one of the modifications of the manner-component.

As this investigation is based on linguistic data extracted from text corpora and the INTERNET, it has turned out that in many cases, while one or two levels of abstraction have very high pragmatic relevance, the others have, though lexicalized, only little pragmatic relevance. In the case of the German verb 'krebsen', for example, the linguistic data have shown that the concept on abstraction level I, i.e. the verb's most literal reading, is the least relevant and that there is very high pragmatic relevance for abstract readings of 'krebsen'. In some cases it has turned out that the pragmatic relevance of one of the verb's readings is so small that it was not possible to find an example.

6.4 Actual Motion and Fictive Motion

On the level of abstraction III (hyperbole concepts), there are modifications of the manner-component which do not involve an actual motion event. Rather, the scenario is conceptualized in terms of a motion event. As mentioned above, Talmey (Talmy, 2003:99-177) calls this phenomenon, the conceptualization of a stative scenario in terms of a motion event, fictive motion. Examples for fictive motion on the level of abstraction III are the following verbs: English: 'to snake', derived from 'snake'; German: 'sich schlängeln' (to snake), derived from 'Schlange' (snake); and French: 'serpenter' (to snake), derived from 'serpent' (snake).

For some 20 kilometers the path was snaking along beautiful lake Temiscouata.
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As there are only abstract scenarios on the level of abstraction IV, there can never be actual motion involved. When abstract scenarios are conceptualized in terms of a motion event, it is always fictive motion which is involved, as the following examples show.

"That’s just what you are", a song from the Melrose Place soundtrack, was snaking rapidly up the music charts....

Wenn einer der besten Kenner und intelligentesten Analytiker jener schwer faßbaren Stimmungen, die durch den Alltag des deutschen Ostens vagabundieren, solches behauptet, muß er ja recht haben. (IDS-Korpus)

S’il tient bien de notre père son grand nez, sa mollesse et cet fausse intelligence qui papillonne a la surface des choses... (FRANCE-TEXT)

6.5 How can manner be characterized?

Before the characterization of the notion manner can be discussed, the difference between path motion and inner motion must be introduced. Zaefferer (Zaefferer, 2002:7) calls this binary distinction within an ontology of motion the locality value of motion. Either only path motion, only inner motion, or both path motion and inner motion can be involved in a motion event. The German verb robben involves - next to manner elements - only path motion; the English verb to snake involves both path motion and inner motion. Within the analysis of exponent-shaped motion verbs in chapters 7 to 9, the elements path motion and inner motion are taken into consideration within the explication of the manner-component.

How can the notion manner be defined or characterized? Slobin states (Slobin, 2003:5) "Manner covers an ill - defined set of dimensions that modulate motion, including motor pattern, rate, rhythm, posture, effect, and evaluative factors".
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It has turned out that the manner-component of the the verbs examined in this investigation involves completely heterogenous elements which are not easy to fully systematize. The following groups of manner elements which cover the most cases are suggested here:

- elements concerning a characteristic path motion:
  
  examples: the manner-component of the French verb 'papillonnner' involves a path motion which consists of many small, abrupt changes of direction.

- elements concerning a characteristic inner motion:
  
  example: the manner-component of the English verb 'to snake' involves a characteristic inner motion.

- elements concerning a characteristic posture of the exponent:
  
  example: hyperbole concepts of the German verb 'robben' involve the element 'to lie on one's belly (and crawl)'.

- the element dynamic texture:
  
  The concept of dynamic texture has been developed by Dowty (Dowty, 2000). Departing from the question of which verbs allow the Agent-Subject-to-Location-Subject Alternation, as in bees swarm in the garden vs. the garden swarms with bees, Dowty asks for the semantics of the Location-Subject Alternation and comes to the conclusion that the Location-Subject Alternation involves a 'situation where a kind of event is occurring simultaneously and repetitively throughout a place or space' and the subregions of activity are so small, numerous and homogenous that the dominant perception they create together is a "texture of movement" in the surface as a whole. This is what Dowty calls dynamic texture. There is a range of English and French exponent-shaped motion verbs which allows the Agent-Subject-to-Location-Subject Alternation, but the only verb whose manner-component can be described in the terms dynamic texture is the French verb 'fourmiller'; insofar as it involves the overall impression of many ants executing numerous small movements.

- elements which involve a misconception concerning the exponent which does not correspond to reality:
example: the manner-component of the German verb 'kren-sen' (a verb derived from a noun denoting a crayfish) involves the idea that a path motion is executed backwards and in a slowly crawling way. In reality, crayfish move neither slowly nor backwards.

- elements which hold a value within the dimensions of frequency, speed, force, or rate. As these values are locations on one-dimensional scales, the domains of frequency, speed, force and rate are, in Langacker's terms, locational domains. (Langacker, 1987:152-154)

example: the manner-component of the German verb 'strö-men' involves the element that a relatively large quantity of water flows with relatively great force. The manner-component of the English verb 'to shuttle' involves the element that a train runs over a short distance with relatively high frequency.

- elements concerning force-dynamics

The manner-component of some verbs includes an element which has to be interpreted in terms of Talmy’s force-dynamics concept, which is - roughly speaking - about the way in which entities interact with regard to the force which they exert. (The concept force-dynamics will be presented in greater depth in chapter 6.6.)

example: the manner-component of the English verb 'to worm' includes - in terms of an anthropocentric conceptualization of the scenario - the element that the worm moves through the soil and overcomes a force which is executed by the soil. In Talmy’s terminology, the worm is an Agonist with an intrinsic tendency to move. The soil executes an external force opposing the Agonist’s intrinsic tendency to move. Here, the soil executes the lesser relative force which can be overcome by the worm, which executes the greater relative force; thus, the worm’s tendency to move becomes realized in resultant motion.

The force-dynamics elements of the literal reading of exponent-shaped motion verbs or, generally, manner-of-motion verbs are also present in the abstract metaphorical reading. Slobin (Slobin, 2003) gives the following examples to illustrate the effects of these verbs in metaphorical contexts.
example: a political campaign *stumbles* on roadblocks
example: prices can *drift* / *soar* / *lurch* or *plunge*

An example for an exponent-shaped motion verb whose force-dynamics elements govern the interpretation of the metaphorical scenario is the German exponent-shaped motion verb 'robben' in the following sentence:

example: ...beharrlich *robbt* das Häufchen der betont national-liberal Gesonnenen ins Zentrum der FDP. (IDS-Korpus)

The verb 'robben' in its most literal reading denotes the way in which a seal moves ashore: it lies on its belly and crawls. Because the seal must overcome frictional resistance, the way in which it moves ashore is laborious and slow. The interpretation of the metaphorical scenario does not involve the manner elements 'to lie on one's belly and crawl' because the metaphorical concept is motivated by a hyperbole concept of 'robben', where the manner-component is modified. The interpretation of the metaphorical scenario involves only the force-dynamics element of the verb 'robben'. The interpretation of the scenario can be reformulated as follows:

A few politicians, who belong to the Liberal Democratic Party and whose attitude is nationally liberal, are approaching the political center of the party slowly and laboriously by overcoming many hindering factors.

- evaluative elements

The manner-component of some exponent-shaped motion verbs involves evaluative elements.

example: the manner-component of the German verb 'pilgern' (to make a pilgrimage) involves the aspect that one travels to a place which is religiously worshipped.

### 6.6 Talmay’s Concept of *force-dynamics*

The basic concepts of Talmay’s *force dynamics* are presented here because *force dynamics* plays a roll in the analysis of a number of verbs which are the subject of this investigation. For the whole system of force-dynamics and for
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the extensions of the force dynamics concept with regard to social interaction, psychology, and the modal verbs, see Talmy. (Talmy, 2003:430-470)

6.6.1 Introduction

In (Talmy, 2003: 409-470) Force Dynamics in Language and Cognition, Talmy defines the notion force dynamics as the way in which entities interact with regard to force. This includes phenomena such as the exertion of force, the resistance against force, the overcoming of a resistance, the blocking of a force, and the overcoming of a blocking.

In the structure of language, the concept of force dynamics is present in diverse types of causativity, in prepositions, conjunctions, in the modal verbs, and as a part of the meaning of many lexemes. Force dynamics is present not only within the domain of physics but also within the domains of psychology, social interaction and discourse. The concept of force dynamics is based on a naive understanding of physics and psychology which is not in all cases consistent with the concepts of modern science.

Talmy situates the concept of force dynamics within cognitive semantics. This approach assumes that certain concepts find their way into the grammar of a language, i.e. they are expressed by closed class forms such as inflectional endings, particles, or grammatical relations. Some of these concepts play an important role in lexicalization patterns, i.e. they are expressed by open class forms. There are many languages which have inflectional endings for expressing the concept of number. There is, however, probably no language which has inflectional endings for expressing the concept of color. The concept of force dynamics is, according to Talmy, a concept which has found its way into the grammar of languages.

6.6.2 Basic force dynamic distinctions

6.6.2.1 Steady-state force dynamic patterns

The most basic concept of force dynamics, which is the starting point for all the more complex concepts, is the steady-state opposition of two forces. The primary distinction upon which the steady-state opposition is based is two entities exerting a force with respect to each other. One of the two entities is in the center of interest and can either overcome the opposing (weaker) force executed by the other nonfocused entity, or it is overcome by the opposing (stronger) force executed by the other nonfocused entity. To name the two
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entities, Talmy uses two terms from physiology, where they denote a pair of muscles which exert forces which are opposed to each other. The entity which is in the center of interest, the focused force, is called Agonist; the force which is not in the center of interest, the nonfocused force, is called Antagonist.

The four basic patterns of interaction between Agonist and Antagonist are represented by the following symbols:

<table>
<thead>
<tr>
<th>Force Entities</th>
<th>Intrinsic force tendency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agonist (Ago):</td>
<td>toward action: ↑</td>
</tr>
<tr>
<td>Antagonist (Ant):</td>
<td>toward rest: ●</td>
</tr>
</tbody>
</table>

Resultant of the force interaction  Balance of strengths

action:   stronger entity: +  
rest:  weaker entity: −

A force exerted by an entity is conceptualized as intrinsic to the entity regardless of whether the force is exerted permanently or not.

The tendency to exert a force is conceptualized either as a tendency to action or a tendency to rest.

Another concept which is important with regard to two entities exerting opposing forces is the concept of relative strength. An entity which overcomes a force exerted by another entity exerts the greater relative strength. The relative strength of two opposing forces exerted by two entities leads to a result which consists either of action or of inaction of the focused entity.

The distinction between action and inaction leads to four force-dynamics patterns concerning the steady-state opposition.

Pattern 1: An Antagonist exerts a force on an Agonist with an intrinsic tendency to rest and forces the Agonist into action because it exerts the greater relative force.
Pattern 2: An Antagonist exerts a force on an Agonist with an intrinsic tendency to rest. As the Antagonist exerts the lesser relative force, the Agonist can maintain its intrinsic tendency to rest.

Pattern 3: An Antagonist exerts a force on an Agonist with an intrinsic tendency to action. As the Antagonist exerts the lesser relative force, the Agonist can maintain its intrinsic tendency to action.

Pattern 4: An Antagonist exerts a force on an Agonist with an intrinsic tendency to action and forces the Agonist into rest because it exerts the greater relative force.

Talmy gives the following examples to illustrate these four patterns:

a. The ball kept rolling because of the wind blowing on it.
b. The shed kept standing despite the gale wind blowing against it.
c. The ball kept rolling despite the stiff grass.
d. The log kept lying on the incline because of the ridge there.

Each pair which can be formed from these four patterns has one factor in common: a. and b. have the Agonist’s intrinsic tendency to rest in common, c. and d. the Agonist’s intrinsic tendency to action. The pair a. and c. have the result action in common, and b. and d. the result rest.

The pair a. and d. have a ‘because of’ relation in common because the result is caused by the fact that an Antagonist exerts a force; b. and d. have a ‘despite of’ relation in common because the result is there despite an Antagonist’s exertion of a force. (Talmy, 2003: 413-417).
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Within the analysis of certain exponent-shaped motion verbs, it is Pattern 3 which is of relevance, i.e. an exponent (the Agonist) with a tendency to action moves within an environment (the Antagonist) that executes an opposing force. As the exponent executes the greater relative force, it can maintain its tendency to action.

6.7 The Interpretation of Scenarios on the Levels of Abstraction II, III and IV

6.7.1 Invention I and eventivity I are implied

Adopting Croft’s approach, it is proposed here that on the levels of abstraction II, III and IV, it is in all cases the exponent-shaped motion verb which governs the interpretation of the whole scenario by means of domain mapping. Why is this so? First, whenever an exponent-shaped motion verb is used, there must be an exponent which executes the movement (otherwise the sentence is not grammatical) and the exponent elaborates a salient substructure with respect to the verb. Thus, the exponent-shaped motion verb is dependent and the subject denoting the exponent of motion is autonomous, which means that the autonomous expression, namely the subject denoting the exponent of motion, induces domain mapping in the verb, i.e. the whole scenario is interpreted in terms of the verb. Second, whenever an exponent-shaped motion verb is used on these levels, properties of the exponent denoted by the noun base are implied and the manner-component is implied, i.e. the implicit comparison of the exponents on the levels of abstraction II, III and IV with the exponent denoted by the noun base (the comparison of inventions II, III and IV with invention I), and the implicit comparison of the motion concepts on the levels of abstraction II, III and IV with the manner-component (the comparison of eventities II, III and IV with eventity I) are present. This means that on the levels of abstraction II, III and IV, the verb governs assumptions concerning the exponent involved and governs assumptions concerning the motion event. That this actually the case is shown by the following analysis of uses of the German verb ‘strömen’ on the levels of abstraction II, III and IV.

invention I: 'Strom'
Großer, breiter (meistens ins Meer mündender) Fluß. (Duden, 1989)
(Large, broad river, which usually flows into the sea)
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**eventity I:** ‘strömen’

breit, gleichmäßig (aber mit großer Gewalt) dahinfließen. (Duden, 1989)

(to flow evenly but with force)

**abstraction level I: to move as the exponent**

Denn an der Ostseite, nah dem Mauerring, strömte ein ziemlich breiter Fluß von Norden her an dem alten Nest vorbei. (Leipziger Korpus)

The *manner*-component of the 'strömen'-**eventity** involves the element that a relatively large quantity of water, namely the water of a large, broad river, flows with relatively great force. On the levels of abstraction II, III and IV, the aspect *large quantity* as well as the aspect *force* must be understood not in absolute terms, but with respect to a scale relevant within the domain in question on which they hold relatively high values.

**abstraction level II: to move like the exponent**

Aus der Kopfwunde strömte Blut.

Within the domain of a bleeding injury, the verb 'strömen' governs assumptions concerning the amount of blood with the fact that **eventity I** is implied, and assumptions concerning the way in which the blood flows with the fact that **eventity I**, namely the *manner*-component, is implied. The interpretation of the scenario in terms of 'strömen' requires the application of a focal adjustment, namely *selection*, which adjusts the values of the elements *relatively large quantity* and *relatively great force* to the domain referred to here. The interpretation of the scenario can be reformulated as follows: (due to the injury) a relatively large amount of blood is lost within relatively short time. That this is the correct interpretation is shown by the unacceptability of the following sentence:

*Bult strömte aus der Wunde, aber es tropfte nur ein wenig.*

That this interpretation is governed by 'strömen' can also be shown by sentences in which 'strömen' is replaced by a neutral verb. The interpretation of these sentences does not involve assumptions concerning the amount of blood and the way in which it flows.
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Aus der Kopfwunde trat Blut aus.
Aus der Kopfwunde floß Blut.
Die Kopfwunde blutete.

abstraction level III: the hyperbole concept

Menschen, die ihre Weihnachtseinkäufe machten, strömten durch die Fußgängerzone.

Within the domain of people walking through the pedestrian zone, 'strömen' governs a certain conceptualization of the exponent insofar as the people involved are conceptualized as a whole; the fact that the people are individuals recedes into the background. This conceptualization can be attributed to the focal adjustment abstraction (a higher degree of schematicity is chosen), which is induced by the fact that the verb 'strömen' implies 'water'. Ontologically speaking, water is a substance and forms a whole. The manner-component of 'strömen', with its elements relatively large quantity and relatively great force (which are adjusted to the domain referred to by the focal adjustment selection), governs an interpretation of the scenario which can be reformulated as follows: a lot of people, who are conceptualized as a whole and who constitute a large total quantity, move through the pedestrian zone with force. This can be illustrated by the unacceptability of the following sentence:

*Menschen, die ihre Weihnachtseinkäufe machten, strömten durch die Fußgängerzone, aber es waren nur einige wenige, die gemächlich dahinschlenderten.

When 'strömen' is replaced by a neutral verb, the interpretation does not include assumptions concerning the people involved or the way in which they move.

Menschen, die ihre Weihnachtseinkäufe machten, gingen/liefen durch die Fußgängerzone.

abstraction level IV: the metaphorical concept

Alles, was Entzückung und schmachtende Sehnsucht Zärtliches eingegeben kann, strömte von meinen Lippen. (Leipziger Korpus)
'Strömen' is used here within the domain of spoken words. As in the case of the hyperbole concept, the fact that 'water' (focal adjustment: abstraction) is implied makes the individual words meld together into a whole. The focal adjustment selection adjusts the elements relatively large quantity and relatively great force to the domain of spoken words and governs an interpretation which can be reformulated as follows: a lot is said within short time and the way in which it is said is with verve. This is shown by the inacceptability of the following sentence:

*Alles, was Entzückung und schmachtende Sehnsucht Zärtliches
ingeben kann, strömte von meinen Lippen, ich sagte aber nur
einige, wenige Sätze.

That this interpretation is governed by the verb can be shown when 'strömen' is replaced by a neutral verb. As in the above-mentioned cases, the interpretation of the scenario does not include assumptions concerning the number of words spoken and the way in which they are spoken:

Alles, was Entzückung und schmachtende Sehnsucht Zärtliches
eingeben kann, kam von meinen Lippen.

Ich sagte alles, was Entzückung und schmachtende Sehnsucht
Zärtliches eingeben kann.

Both inventory I and eventity I govern the interpretation in probably all the cases in which substances, collections and formations are implied, in all the cases on abstraction level II in which the restrictions established by the manner-component require a certain shape or a certain posture of the exponent in order to be able to move like the exponent denoted by the noun base, and in all the cases in which the exponent denoted by noun base involves evaluative elements, as in the case of the German noun/verb pair 'Pilger/'pilgern' (pilgrim/to make a pilgrimage). Whenever the verb 'pilgern' is used on abstraction level III, the verb 'pilgern' governs by means of domain mapping, through the fact that a 'pilgrim' is implied, the interpretation that the exponent within eventity III worships something or somebody in a way which is so strong that it can be equated with religious worshipping. The nature and the approximate values of the element 'somebody worships somebody or something' and 'the worshipping is so strong that it can be equated with religious worshipping' are adjusted to the domain in question by means of the focal adjustment selection. This is illustrated by the following examples:
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abstraction level III: the hyperbole concept

Rund 800 Kundinnen pügern jährlich mehrere Male in das Idyll, um sich von Stoehr einkleiden zu lassen. (IDS-Korpus)

Long Island ist Sommerzuflucht der New Yorker - zwischen Juni und August pügern Hunderttausende hinaus zu ihren Feriendomizilen. (IDS-Korpus)

Dreitausend Besucher pügerten in Moskau täglich zu den Bildern Kandinskys, die zumeist während der vergangenen Jahrzehnte, als der abstrakte Künstler verbrüt war, in den Depots der Kulturinstitute lagerten. (IDS-Korpus)


6.7.2 Invertity III and eventity III are implied

There are some cases in which metaphorical concepts are motivated by a hyperbole concept and thus are interpreted in terms of the hyperbole concept, i.e. it is invertity III and eventity III which govern the interpretation of the abstract scenario in exactly the same way in which invertity I and eventity I govern the interpretation. This is, for example, the case with metaphorical concepts of 'to roll', in which the fictive motion event is interpreted in terms of a rolling wave. The comparison is - if not explicitly present - implied. Here, the interpretation of the scenario also involves assumptions concerning the abstract exponent and assumptions concerning the fictive motion event. This can be shown by the following example:

abstraction level III: the hyperbole concept

The tidal wave rolled on, submerging the neighboring village of Santiago (pop.: about 1400) and two other small communities. (http://www.time.com/time/magazine/article,0,9171,1050626-4,00.html, accessed on Oktober 21 2007)
CHAPTER 6. A THEORY OF EXPONENT-SHAPED MOTION VERBS 79

abstraction level IV: the metaphorical concept

Fear *rolled* in my tummy. My blood ran cold. I heard laughter behind...
(http://www.christinehemp.com/p-london_cops.htm, accessed on December 19 2007)

In these examples, the abstract exponent is conceptualized in terms of an exponent other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component of the 'to roll'-eventity, namely, in terms of a wave. The interpretation governed by the fact that the comparison with a wave is present involves the idea that the abstract exponent, the fear, constitutes a relatively large total quantity, i.e. that there is a lot of fear. The fact that the way in which waves roll is implied governs the interpretation that the abstract exponent fictively moves with relatively high speed and relatively forcefully. That this is the correct interpretation is shown by the unacceptability of the following sentence:

*Fear rolled in my tummy. There was, however, almost no fear and very little movement.

6.7.3 The manner-component or certain aspects of the manner-component are implied

There are cases in which only the manner-component or certain aspects of the manner-component govern the interpretation on the levels of abstraction III and IV by means of domain mapping. An example is the German noun-verb pair 'Ei'/eiern'. The manner-component of the 'eiern'-eventity involves an egg's special way to roll, which can be attributed to its shape properties. The egg wobbles and does not keep its course when it rolls; the course of a rolling egg is not predictable. The amplitude of the wobbling movement is wide but differs in width, and the frequency of the wobbling movement is high but irregular. Further, the way in which an egg rolls is evaluated as erratic and irregular.

One of the concepts on abstraction level III involves the element that an exponent rotates about its axis and wobbles. Here, it is irrelevant to which degree the rotating exponent deviates from an ideal axis, i.e. the width of the amplitude of the wobbling movement is irrelevant; it is the irregularity of the movement which is in focus.
On abstraction level IV, the verb 'eiern' has the meaning 'not to take up a clear position'. The verb 'eiern' governs the interpretation that the positions are changed with relatively high but irregular frequency and that the positions differ from each other generally considerably - they differ, however, to varying degrees. Both the changes of position and the degree to which they vary is evaluated as erratic. This interpretation can be attributed to certain aspects of the manner-component, namely, to the wobbling movement of a rolling egg, more exactly to the fact that the amplitude of the wobbling movement is wide but differs in width, that the frequency of the wobbling movement is high but irregular, and that the way in which an egg rolls is erratic in nature.

In these cases, the fact that the exponent 'egg' is implied does not play any role in the interpretation of the scenario.

6.8 An Ontology of Motion: the Conceptual Structure of the Alternations

Zaefferer proposes in (Zaefferer, 2002:6-7) the following:

"Motions are of course entities and they can occur in different aspectualities. If they are not inherently bounded, they are alienable and therefore stages, and they are dynamic and therefore activities. If they are inherently bounded, they can be transitional, i.e. conceptualized in terms of a change, such as travel to London (extended, hence process) or arrive at the airport (not extended, hence event), or not transitional, e.g. twitch once or circle the block. But there are other distinctions among motions that are not implied by the general ontology" (...) (which has been presented in chapter 5). "One of them becomes immediately visible when we compare the codings of the superconcept itself (...)."

<table>
<thead>
<tr>
<th></th>
<th>intransitive verb</th>
<th>transitive verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>German</td>
<td>sich bewegen</td>
<td>bewegen</td>
</tr>
<tr>
<td>English</td>
<td>move</td>
<td>move</td>
</tr>
<tr>
<td>French</td>
<td>se mouvoir</td>
<td>mouvoir</td>
</tr>
<tr>
<td></td>
<td>noun</td>
<td></td>
</tr>
<tr>
<td>German</td>
<td>Bewegung</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>motion, movement, move</td>
<td></td>
</tr>
<tr>
<td>French</td>
<td>mouvement</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 6. A THEORY OF EXPONENT-SHAPED MOTION VERBS

English is the only language which uses the same verb for the concept of motion and the concept of caused motion. Zaefferer calls this the causedness value of motion, which can either be causeless or caused. In the case of causeless motion, a cause can exist, but it is not conceptualized. Despite the fact that English uses the same verb for causeless motion and caused motion, it is, however, not the case that no distinction between causeless and caused is made. A distinction is made by means of the valency of the polysemic verb. One reading implies intransitive valency; the other reading implies transitive valency. "Caused motion means that motion is conceptualized as the effect in a cause-effect pair. If motion is conceptualized as the cause in a cause-effect pair, we speak of effecting motion" (Zaefferer, 2002:7). So, in addition to the binary distinction caused motion–causeless motion, there is a second binary distinction, namely effectless motion–effecting motion. The effect of an effecting motion can be, but need not be another motion. Zaefferer refers to an example proposed by Hovav, Rappaport and Levin (1995) which illustrates all three cases.

A huge bird swept down.
Phil swept the floor.
Phil swept the crumbs into the corner.

The intransitive reading in the first example codes an effectless motion. The transitive readings in the second and third examples code an effecting motion. The effect in the second example is a state, not a motion; in the third example, the effect of the effecting motion 'sweep' is a caused motion.

As already mentioned in chapter 6.5., movements vary with respect to a third dimension which also constitutes a binary distinction, namely path motion and inner motion. The difference between path motion and inner motion can also be illustrated with the aid of the three examples mentioned above. In the case of path motion, the exponent executes a path motion, as in a huge bird swept down. In the case of inner motion, the exponent as a whole does not move; instead, a part of the exponent executes a motion, namely Phil's arm in Phil swept the crumbs into the corner.

In addition to these three binary distinctions, there are two further nonbinary distinctions, manner of motion and exponent of motion. Zaefferer suggests that 'on a priori grounds every motion must have a value in at least the following five dimensions' (Zaefferer, 2002:7), which are:

- causedness value of motion: causeless motion / caused motion
CHAPTER 6. A THEORY OF EXPONENT-SHAPED MOTION VERBS

- effectivity value of motion: effectless motion / effecting motion
- locality value of motion: internal motion / path motion
- manner of motion: walking, jumping, swimming..., slow, fast,...
- exponent of motion: individuals: people, animals, rocks,... collections, substances

6.9 The Procedure in the Analysis of the Verbs

As mentioned in 6.2, the starting point for the analyses of the verbs is a dictionary definition (German: Duden, Deutsches Universwörterbuch (1989); English: Concise Oxford English Dictionary (2002); French: Le Robert, Dictionnaire historique de la langue francaise (2000) and Le Robert Micro, Dictionnaire de la langue francaise (1998)) of the nominal concept, i.e. the exponent denoted by the noun base (eventivity I), and the derived verbal concept in its most literal meaning, i.e. the motion concept to move as the exponent (eventivity I). (In some cases the definition of the verbal concept is vague and it is not clear whether it includes the verb's most literal reading). Both concepts are classified with regard to the ontological framework. Etymological information is given in cases of complex semantic change.

As far as word formation is concerned, we agree with Altmann and Kemmerling (Altmann and Kemmerling, 2000:67-69) in classifying the nominal verbs as conversions. Altmann and Kemmerling argue that within conjugation, the infinitive ending is replaced by other verbal endings. This speaks against a classification of the infinitive ending as a suffix and the nominal verb as suffixation.

Then, the manner-component will be described explicitly. As the restrictions established by the manner-component hold true for the level of abstraction II, the question of which exponents qualify here will be answered. On the third level of abstraction, i.e. the level of the hyperbole concepts, the modification or modifications of the manner-component will be described explicitly. For the fourth level of abstraction, the question of whether the metaphorical concepts are motivated by the manner-component and/or by the modification or one of the modifications of the manner-component will be answered. A decompositional semantic analysis taking into account the positions causedness, effectivity, locality, manner and exponent is given for each reading of the verb on each level of abstraction. Within the decompositional semantic
analysis, an explicit description of the way in which the verb governs the interpretation of the scenario will be attempted.

The German examples have been extracted from the COSMAS I corpus of the Institut für Deutsche Sprache (IDS) Mannheim, from the Leipziger Korpus and from the INTERNET; the English examples have been extracted from the British National Corpus (BNC) and from the INTERNET; and the French examples have been extracted from the corpus FRANTEXT and from the INTERNET.
Chapter 7

German Exponent-Shaped Motion Verbs

7.1 Geometrical Bodies

7.1.1 Nominal concept 'Rolle', verbal concept 'rollen'

_inventivity I and basic eventity I_: The polysemous lexeme 'Rolle' is of interest here in its reading _zylindrischer Körper mit kreisförmigem Querschnitt_, and the polysemous lexeme 'rollen' in its reading _sich unter fortwährendem Drehen um sich selbst (fort)bewegen_ (Duden, 1989). There is noncircular definition between _inventivity I_ and _basic eventity I_.

_Etymology_: The New High German lexeme 'Rolle' is borrowed from French (rôl), which goes back to Latin _rotulus, rotula_ (small wheel), diminutive of _rota_ (wheel). The lexeme 'Rolle' first referred to a document which is rolled up. Influenced by the verb 'rollen', the meaning of the noun was transferred to other cylindrically-shaped objects. The New High German lexeme 'rollen' was also borrowed from French (rouler). The origin of the French verb 'rouler' can be attributed partly to the Latin noun _rotella_ (small wheel) and partly to the Latin noun _rotula_ (small wheel) (Kluge, 2002).

_Ontology_: Within the ontological framework used here, the entity denoted by the lexeme 'Rolle' can be classified as _inventity_, more exactly as _absolute individual_; and the entity denoted by the lexeme 'rollen' as _eventity_, more exactly as _activity_.
Word Formation: noun base: 'Rolle'; conversion, verbal suffix -en; simulative

7.1.1.1 The explication of the manner-component of the 'rollen'-event

The manner-component of the 'rollen'-event can be explicated as follows: there must be a permanent contact between the exponent 'Rolle' and a ground so that there is contact solely between the surface of the cylinder wall and the ground. Further, the exponent rotates, and the friction which must be there between the surface of the cylinder wall and the ground results in the straight, steady path motion of the exponent. Notice that activities which do not involve contact between the exponent and the ground and path motion resulting from friction when the exponent rotates are not referred to as 'rollen'.

7.1.1.2 The decompositional conceptual structure of the 'rollen'-event on four levels of abstraction

7.1.1.2.1 abstraction level I: to move as the exponent

basic event I: (causeless motion)

Zeigt die Verlängerung des Fadens vor diesen Punkt, rollt die Rolle weg, zeigt sie auf diesen Punkt, rutscht sie, zeigt sie dahinter, rollt sich der Faden auf und die Rolle rollt heran. (http://www.wundersammelsurium.de/Mechanisches/Garnrolle/index.html, accessed on September 15 2007)

The decompositional conceptual structure of 'rollen' on abstraction level I (basic event I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>event I: exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>
**causativized eventity I:** *(caused motion, agent-causation)*

An example was not found

Abstraction level I also covers cases in which exponents execute the ‘rollen’-*eventity* because they have wheels, which are in some cases called 'Rollen' in German. In these cases, the subject position is occupied by an expression which is interpreted metonymically (toto pro pars).

**basic eventity I:** *(causeless motion, interpreted metonymically)*

Ein einsamer Einkaufswagen *rollt* allein über die kahle Betonfläche
(http://www.uloc.de/cgi-bin/wiki.pl?Informationen/CPBF09, accessed on October 14 2007)

*Rollt* ein Einkaufswagen auf einem Supermarktparkplatz weg, weil der Schädiger ihn loslässt, um sein Kfz zu öffnen, ist haftbar im Schadensfall die Kfz-Haftpflicht, nicht die Privathaftpflicht.

Der Drehstuhl *rollte* nach hinten und kippte fast um, wäre da nicht Seth, der ihn mit dem Fuß vor dem Umkippen bewahrte.
(http://www.myfanfiction.de/texte/mysterie/end-of-all-hope.3453.11796.html, accessed on October 14 2007)

Auf einmal *rollte* das Scheunentor vollends zur Seite.
(http://www.dit-saphire.de/home/geschichten/2-teil-freundschaft-ist-keine-frage-der-zeit/2-maja/, accessed on October 14 2007)

The decompositional conceptual structure of 'rollen' on abstraction level I with the verb inducing *domain highlighting* in the subject *(basic eventity I, causeless motion, interpreted metonymically)* is as follows:

<table>
<thead>
<tr>
<th>grammatical relation</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject</td>
<td>exponents which can roll by means of 'Rollen' (subject interpreted metonymically)</td>
<td>causeless, effectless</td>
</tr>
<tr>
<td>predicate</td>
<td><em>eventity I:</em> manner-component (predicate induces <em>domain highlighting</em> in the subject)</td>
<td></td>
</tr>
</tbody>
</table>
causativized eventity I: (caused motion, agent-causation, interpreted metonymically)

Piper rollte den Einkaufswagen in dem gerade Chris saß.
(http://www.fanfiction.de/s/4632332a000051b065b58/3, accessed on October 21 2007)
"Geht klar, aber wehe ich flieg quer durchs Zimmer", meinte Corvin. Er rollte den Drehstuhl hinterm Schreibtisch hervor und zu den Regalen...

The decompositional conceptual structure of 'rollen' on abstraction level I with the verb 'rollen' inducing domain highlighting in the object (causativized-eventity I, caused motion, agent-causation, interpreted metonymically) is as follows:

<table>
<thead>
<tr>
<th>gramatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>gramatical relation: predicate</th>
<th>eventity I: manner-component (predicate induces domain highlighting in the object)</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>gramatical relation: object</th>
<th>exponents which can roll by means of 'Rollen' (object interpreted metonymically)</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>agent and exponent present</th>
<th>caused motion (agent-causation), effectless</th>
</tr>
</thead>
</table>

7.1.1.2.2 abstraction level II: to move like the exponent On this abstraction level, since the restrictions which are established by the manner-component hold true, only exponents which are objects (ontologically speaking: absolute individuals) whose shape properties guarantee permanent contact with a ground, qualify.

basic eventity II: (causeless motion)

Dann versuchte ich es mit einem Bleistift, aber die Kugel rollte nur noch weiter in das Mausloch hinein.

Beteerte Fässer *rollten* von den Schwellen. (http://freiburger-anthologie.ub.uni-freiburg.de/fb/faqoid=gedichte &sub=show&ch=header=1&add=&id=1584, accessed on October 14 2007)

Im Augustiner Keller *rollten* noch bis 1861 Köpfe vom Schafott! (http://dsl.freenet.freenet/leise/reismagazin/natur_kultur/ bayerische_bergarten/02.html, accessed on October 14 2007)


Ein paar Goldstücke *rollten* dir dabei vor die Füße, die du aufgehoben und behalten hast. (http://www.astrologor.de/source.php?op=show&file=2flsheim %2flsun Blanc, accessed on October 14 2007)

Nie zuvor *rollte* der Ball schneller und präziser bei einem Fußballturnier. (http://www.zeit.de/2004/29/Portugal_29, accessed on October 14 2007)

Und das Äpfelchen *rollte* und *rollte*. (http://www.geocities.com/phonik2/apfelchen.html, accessed on October 14 2007)

Ein kleiner Igel *rollte* munter von einem hohen Berg herunter. (http://www selvomerdgedanken.info/forum/thread.php?threadid= 144576&sid=9f519ee717772aeb7d76f1a701fbc1f3fe36907144576, accessed on October 14 2007)

Der Junge *rollte* über die Motorhaube und erlitt dabei Prellungen, er wurde ins Krankenhaus gebracht. (http://www.wiesentbote.de/artikel-4365.html, accessed on October 14 2007)


The decompositional conceptual structure of 'rollen' on abstraction level II (basic event; II, causeless motion) is as follows:
<table>
<thead>
<tr>
<th>Grammatical relation</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td><em>event</em> II: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of <em>event</em> I.</td>
<td><em>event</em> I: the fact that the exponent 'Rolle' is implied governs by means of domain mapping the interpretation that the exponent denoted by the noun base either has or can adopt the shape properties which guarantee permanent contact with a ground, and in some cases that the exponent is present in a certain posture, e.g. when a coin or a person executes the 'rollen'-<em>event</em>. The approximate values of the elements 'to have or to adopt the shape properties which guarantee permanent contact with a ground' and 'to be present in a certain posture' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
</tr>
</tbody>
</table>
| Predicate           | *event* II: unmodified manner-component with the values of the manner elements being readjusted | *event* I: the fact that manner-component is implied governs by means of domain mapping the interpretation that the exponent denoted by the noun base is in permanent contact with a ground and rotates. The exponent executes a straight, steady path motion which is due to friction between the exponent and the ground. The nature and the approximate values of the elements 'to be in permanent contact with a ground', 'to rotate', and 'to execute a straight, steady path motion which is due to friction between the exponent and the ground' are adjusted to the domain in question by means of the focal adjustment *selection*.

Valency: only exponent present

*causeless, effectless*
causativized eventity II: (caused motion, agent-causation)

Fest entschlossen, dieses weiße Etwas auszubrüten, rollte das Tier meinen Ball davon.

Atomkraftgegner rollten Abfallfässer von Kirchheim nach Stuttgart.
(http://www.i-st.net/~bnuendnis/presse/presse.htm, accessed on October 14 2007)

Ein Engel kam vom Himmel herab, rollte den Stein vom Grab weg und setzte sich darauf.

Er runzelte ernsthaft die Stirn und rollte den Bleistift dabei zwischen den Zähnen.

The decompositional conceptual structure of 'rollen' on abstraction level II
(causativized eventity II, caused motion, agent-causation) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
<th>grammatical relation: object</th>
<th>valency</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent</td>
<td>eventity II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td>eventity II: exponents other than exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of eventity I</td>
<td>agent and exponent present</td>
</tr>
</tbody>
</table>

causativized eventity II: (self-agentive causation)

Er seufzte und rollte sich mit Bedauern von der Couch.
(http://www.fanfictionparadies.de/stories/842, accessed on October 14 2007)

Der 26-jährige rollte sich den einen Meter vom Rasen über die Außenlinie, die medizinische Abteilung wies nach Sekunden zur Trainerbank:
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

Wechsel.
(http://www.abendblatt.de/daten/2006/06/21/576445.html, accessed on October 14 2007)

The decompositional conceptual structure of 'rollen' on abstraction level II (causativized eventity II, caused motion, self-agentive causation) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>Grammatical relation: predicate</th>
<th>Valency</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventity II</em>: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of <em>inventity I</em></td>
<td><em>eventity II</em>: unmodified manner-component with the values of the manner elements being readjusted</td>
<td>agent and exponent present (bivalence)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>implicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>The implications concerning <em>inventity I</em> and <em>eventity I</em> are analogous to <em>basic eventity II</em>.</td>
<td></td>
</tr>
</tbody>
</table>

Abstraction level II also covers cases in which exponents execute the 'rollen'-*eventity* because they have wheels. Since wheels are simply shortened rolls, neither any properties of the exponent nor the values of the manner elements are being readjusted.

**basic eventity II**: (*causeless motion, interpreted metonymically*)

Anfang Oktober 1938 rollten in der Retortenstadt Wolfsburg die ersten 'Volkswagen' vom Band.
(http://www.klaus-kramer.de/Artikel/Folkeboot-Story/Folkeboot_tep1.html, accessed on October 14 2007)

(http://www.spiegel.de/panorama/0,1518,476083,00.html, accessed on October 21 2007)

Die Veranstaltungshalle, in die einst die Waggons mit den schweren Wolleballen rollten, fasziniert durch ungewöhnliche Proportionen.
(http://www.delmenhorst.de/nordwolle/commedia/, accessed on October 14 2007)
Im September 2005 rollten erneut die Umzugswagen an.
(http://www.tu-dresden.de/sub/_script/projekte/index.php?project=7, accessed on October 21 2007)
Ein brennender Bagger rollte in Deutschlandsberg in der Steiermark herrenlos 70 Meter weit rückwärts...
(http://www.shortnews.de/start.cfm?id=637820, accessed on October 14 2007)
Interregio rollte schon: Keine Haftung der Bahn, wenn Fahrgast auf bereits fahrenden Zug auftaucht.
(http://www.finanztip.de/tip/recht/verbraucherrecht.htm, accessed on October 14 2007)

The decompositional conceptual structure of 'rollen' on abstraction level II with the verb inducing domain highlighting in the subject (basic eventity II, causeless motion, interpreted metonymically) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject</td>
<td>exponents which can roll by means of wheels (subject interpreted metonymically)</td>
<td>causeless, effectless</td>
</tr>
<tr>
<td>predicate</td>
<td>unmodified manner-component (predicate induces domain highlighting in the subject)</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td></td>
</tr>
</tbody>
</table>

causativized eventity II: (caused motion, agent-causation, interpreted metonymically)

Mithilfe eines anderen Autofahrers rollten wir das Auto hinter die gegenüberliegende Kreuzung mit einer STOP-Markierung.
(http://www.schroeffn.ch, accessed on October 21 2007)
Ich rollte den Wagen zum Straßenrand, da sah ich Rauchwolken aus der Motorhaube kommen.
(http://autoextrem.de/showthread.php-110451, accessed on October 14 2007)

The decompositional conceptual structure of 'rollen' on abstraction level II with the verb 'rollen' inducing domain highlighting in the object (causativized eventity II, caused motion, agent-causation, interpreted metonymically) is as follows:
7.1.1.2.3 abstraction level III: hyperbole concepts

There is one modification of the manner-component on abstraction level III.

Among the hyperbole concepts there are exponents which are conceptualized as absolute individuals and whose liquid or semi-liquid consistency properties do not allow them to execute the "rollen"-event in the way established by the manner-component, namely avalanches, drops and waves. When avalanches and drops roll, there is always the exponent’s permanent contact with a ground and path present. In the case of rolling waves, the whole scenario is reinterpreted in terms of the manner-component of the "rollen"-event as follows: waves are conceptualized - ontologically spoken - as absolute individuals which move over a separate ground, namely the surface of the water, and execute a path motion. Actually, a wave is an elevation of the surface of the water which constantly recurs and disappears in different places.

Modification I: Modification I covers exponents of liquid or semi-liquid consistency which actually or fictively move over a ground with the element present that they turn over and over when executing a path motion.

basic eventity III: (causeless motion)

Die Lawine rollt auf diesen Aussichtspunkt zu und dann, westlich am Elk Rock vorbei, noch weitere 8 km...
(http://www.dartmouth.edu/~volcano/texts/DGerMStHelens.html, accessed on December 19 2007)
Das karibische Meer schimmert in herrlichen Türkistönen, sanfte Wellen *rollen* in weissandige Badebuchten. 

Eine Welle *rollte* heran, erfaßte den Bug des Schlauchbootes, hob es hoch, um es einen Herzensglag später wieder in das Wellental sinken zu lassen. 
(http://www.buechershopping.de/onlineshop/show_product.php/products_id/838, accessed on December 19 2007)

Die Tropfen *rollten* ab und rissen dabei die auf dem Blatt liegenden Schmutzpartikel mit sich fort. 
(http://www.rwscharf.homepage.t-online.de/pro03/pro0303.html, accessed on December 19 2007)

Es ist lange her, daß ich so gelacht habe wie gestern - die Tränen *rollten* wahrhaft über die Wangen und es kam einfach kein Ende an die lustige Genialität. 
(http://www.bloggit.de/cat_tagebuch_260.html, accessed on October 14 2007)

The decompositional conceptual structure of 'rollen' on abstraction level III (*basic eventity III, causeless motion*) is as follows:
### CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>grammatical relation:</strong> subject</td>
<td><strong>entiy III:</strong> exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
</tr>
<tr>
<td></td>
<td><strong>entiy III:</strong> modified manner-component</td>
<td><strong>entiy I:</strong> the fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the exponent denoted by the subject turns over and over when actually or fictively sliding over a ground. The nature and approximate values of the element &quot;to turn over and over&quot; are adjusted to the domain in question by means of the focal adjustment selection.</td>
</tr>
<tr>
<td></td>
<td><strong>valency</strong></td>
<td><strong>causeless, effectless</strong></td>
</tr>
</tbody>
</table>

#### 7.1.1.2.4 abstraction level IV: metaphorical concepts

The metaphorical concepts which were found are motivated by Modification I of the hyperbole concepts since they are either explicitly or implicitly avalanche-metaphors and wave-metaphors.

**abstract basic entiy:** (causeless abstract motion)

Die Gerichtelawine *rollt*.


Seit gestern *rollt* eine beispiellose Welle der Hilfsbereitschaft für die Hinterbliebenen der verschütteten Bergleute und die Ortsbewohner, die ihre Häuser verloren haben oder verlassen mußten. (IDS-Korpus)

...während es im letzten Jahr vor allem Schweizer Bankiers an den Main zog, *rollt* derzeit die amerikanische und bald die japanische Welle. (IDS-Korpus)
Eine neuartige Welle der Gewalt *rollt* auf uns zu. (IDS-Korpus)

Seit Anfang Dezember *rollt* die Boykottwelle. (IDS-Korpus)

Was *rollt* da auf uns zu? Prof. Dr. Thomas Metzinger: Die Hirnforschung verändert in dramatischer Weise unser Menschenbild und damit die Grundlage unserer...

(http://www.bdp-nrw.de/cgi-bin/bdp-nrw/bdp.pl?btnred=8
20?chk=, accessed December 19 2007)

Die Genwelle *rollt* und es ist höchste Zeit sie zu stoppen.

(http://www.nadeshda.org/foren/cl.initiative.greenpeace/p232s240a
20.html, accessed on October 14 2007)

Die geistig-moralische Wende *rollt* auf uns zu. Der Medienrummel und die Euphorie um den katholischen Weltjugendtag bietet einen Kontrapunkt zur oberflächlichen Spaßgesellschaft.

ne:_Die_geistig-moralische_Wende_rollt_auf_uns_zu/, accessed on
October 14 2007)

The decompositional conceptual structure of 'rollen' on abstraction level IV *(abstract basic entity, causeless abstract motion)* is as follows:
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory IV: abstract exponent</td>
<td>inventory III: the fact that the comparison with an 'avalanche' and a 'wave', respectively, is - if not explicitly present - implied, governs by means of domain mapping the interpretation that the abstract exponent constitutes a large total quantity. The approximate values of the element 'large total quantity' are adjusted to the domain in question by means of the focal adjustment selection.</td>
<td>inventory III: the fact that the way in which avalanches and waves, respectively, roll is implied governs by means of domain mapping the interpretation that the abstract exponent denoted by the subject executes a fictive path motion by turning over and over, and this is with great force and with high speed. The approximate values of the forcedynamics elements 'great force' and 'high speed' are adjusted to the domain in question by means of the focal adjustment selection.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>event</th>
<th>event</th>
</tr>
</thead>
<tbody>
<tr>
<td>event IV: fictive motion event which is motivated by Modification I of the hyperbole concepts</td>
<td>event III: the fact that the way in which avalanches and waves, respectively, roll is implied governs by means of domain mapping the interpretation that the abstract exponent denoted by the subject executes a fictive path motion by turning over and over, and this is with great force and with high speed. The approximate values of the forcedynamics elements 'great force' and 'high speed' are adjusted to the domain in question by means of the focal adjustment selection.</td>
<td></td>
</tr>
</tbody>
</table>

| valency | only exponent present | causeless, effectless |

7.1.2 Nominal concept 'Kugel', verbal concept 'kugeln'

inventory I and basic event I: The polysemous lexeme 'Kugel' is of interest in its reading völlig runder (geometrischer) Körper, bei dem alle Punkte seiner Oberfläche gleich weit vom Mittelpunkt entfernt sind (Duden, 1989). The concept to move as the exponent denoted by the noun base is not lexicalized; it is explicated in 7.1.2.1. There is noncir-
cicular definition between *inventivity I* and *basic eventity I*.

**Ontology:** Within the ontological framework used here, the entity denoted by the lexeme 'Kugel' can be classified as *inventivity*, more exactly as an *absolute individual*; the entity denoted by the lexeme 'kugeln' can be classified as *eventity*, more exactly as *activity*.

**Word Formation:** noun base: 'Kugel'; conversion, verbal suffix -'n'; simulative

### 7.1.2.1 The explication of the *manner*-component of the 'kugeln'-*eventity*

As 'kugeln' is a special case of 'rollen', the *manner*-component of the 'kugeln'-*eventity* first consists in what has been explicated in the *manner*-component of the 'rollen'-*eventity*. The *manner*-component of the 'kugeln'-*eventity* includes the additional element that in contrast to the 'Rolle', which rotates about only one axis when executing the 'rollen'-*eventity*, the 'Kugel' rotates around many different axes when executing the 'kugeln'-*eventity*. Thus the *manner*-component of the 'kugeln'-*eventity* consists in the exponent’s rolling by rotating about many different axes. 'Kugeln' is a special case because what one sees when a 'Kugel' executes the 'kugeln'-*eventity* is simply a rolling 'Kugel'. The additional element which is present in the *manner*-component of the 'kugeln'-*eventity* and which distinguishes 'kugeln' from 'rollen', namely the element of rotating about many different axes, is not visible when a 'Kugel' executes the 'kugeln'-*eventity*. This additional element is visible only when exponents which qualify for abstraction level II execute the 'kugeln'-*eventity*.

### 7.1.2.2 The decompositional conceptual structure of the 'kugeln'-*eventity* on four levels of abstraction

#### 7.1.2.2.1 abstraction level I: to move as the exponent

**basic eventity I**: *(causeless motion)*

*Will heißen, daß er genau über Buch führt, welche Zahlen*\(^*\) *wann und wie oft in den letzten Jahren aus dem Lottotrichter gekugelt sind.* *(IDS-Korpus)*
*In this example, the lexeme 'Zahlen' is a metonymic expression for the lottery balls which are called 'Kugeln' in German.

The decompositional conceptual structure of 'kugeln' on abstraction level I (basic eventity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
<th>valency</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventory I:</em> exponent denoted by the noun base</td>
<td><em>eventity I:</em> manner-component</td>
<td>only exponent present</td>
</tr>
</tbody>
</table>

causativized eventity I: (caused motion, agent-causation)

Kugeln die Kugel zum Ziel!

(http://www.atariwelt.de/downlandereich/spiele/jum_run/index.htm, accessed on October 21 2007)

The decompositional conceptual structure of 'kugeln' on abstraction level I (causativized eventity I, caused motion, agent-causation) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
<th>grammatical relation: object</th>
<th>valency</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent</td>
<td><em>eventity I:</em> manner-component</td>
<td><em>inventory I:</em> exponent denoted by the noun base</td>
<td>agent and exponent present</td>
</tr>
</tbody>
</table>

7.1.2.2 abstraction level II: to move like the exponent Exponents which are - ontologically spoken - in all the cases absolute individuals and which either approximately have or can adopt the shape of a sphere qualify here.
**basic eventity II: (causeless motion)**

Hagelkörner *kugelten* bei offenen Schiebetüren bis in den Glaslift der Novaseta, wohin sich viele Passanten geflüchtet hatten. (IDS-Korpus)

Die Veranstaltung wird schon mehr eine Sauerei als ein Sportereignis; einerseits gibt es sportliche Höchstleistungen, andererseits *kugeln* die Betrunkenen auf allen vieren vom Hang. (IDS-Korpus)

Über die Piste *gekugelt* ist schon jeder, beim Zorbing tut es nicht mehr weh. (IDS-Korpus)

Kleine Kinder *kugeln* vergnügt auf dem Boden herum, die Mütter sind eifrig hinterdrein, die Stimmung könnte nicht familiärer sein. (IDS-Korpus)

Wenn der Nachbar seinen Urlaub im letzten Erdenwinkel verbringt, dessen Kinder in Markenklamotten im Dreck *kugeln* oder der Arbeitskollege ein Auto kauft, dessen PS-Zahl nur knapp über dem Wert des durchschnittlichen Intelligenzquotienten liegt: Er liefert ungefragt seinen Kommentar dazu; und meist keinen guten. (IDS-Korpus)

Dort geht dann die Baby-Sonne auf, *kugeln* Tinky Winky, Dipsy, Laa-Laa und Po über Blumenhügel und glucksen Rumpfsätze. (IDS-Korpus)

Nun, da der Streusplit in den Schländen von Kommunalfahrzeugen verschwindet, *kugeln* wieder Bälle durch den öffentlichen Raum, flitzen Skater um Haus und Mietskaserne (IDS-Korpus)

In den Kammerspielen *kugelt* ein korupanter, saftiger Komiker (Klaus Schöch) über die Bühne. (IDS-Korpus)

Bei einem dieser Versuche - abruptes Ausweichen nach links - kam ein Baby-Benz in ärgste Nöte, er *kugelte* zur Seite (IDS-Korpus).

Vor dort *kugelten* die Säcke in eine Maschine, die die Säcke zerreißt. (IDS-Korpus)

Im letzten Moment sprang der 32jährige vom Motorrad und *kugelte* über den Rasen. (IDS-Korpus)

Zwei Clowns *kugeln* über die Bühne und präsentieren zwischen Kieksern und Stolpern die Moritat vom Mackie Messer. (IDS-Korpus)
Fahrensleute tummeln sich auf dem Burghof, Spielleute, Gaukler und Scharlatane, dazwischen keilen Marktweiber Kunden, *kugelt* der Narr über das Pflaster. (IDS-Korpus)

...die stramm hinter der Türe sich verbarg, war nicht faul und hieb mit einem Streich dem Einbrecher den Kopf ab, daß er weit von dannen *kugelte*.

Auf den Fahrbahnen standen die Leute dicht gedrängt, so dicht, daß ab und an jemand hinunterpurzelte, *kugelte* wie eine leere Tonne und hier und da noch anekte.

Wellen im Sturm, im tiefen Sand - Noah *kugelte* nur die Hügel runter und hat jetzt die Ohren voller Sand.
(http://www.photogg.de/nz/12a.htm, accessed on October 21 2007)

The decompositional conceptual structure of 'kugeln' on abstraction level II (*basic eventity II, causeless motion*) is as follows:
<table>
<thead>
<tr>
<th>grammatical</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>relation:</td>
<td><em>inventity II</em>: exponents other than the exponent denoted by the noun base which qualify for the <em>manner</em>-component, with certain properties of the exponent being readjusted in terms of <em>inventity I</em></td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td><em>inventity II</em>: unmodified <em>manner</em>-component with the values of the manner elements being readjusted</td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td><em>inventity I</em>: the fact that the exponent ‘Kugel’ is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject either has or can adopt approximately the shape of a sphere in order to be able to rotate about several axes when rolling. The approximate values of the elements ‘to have or to adopt approximately the shape of a sphere’ are adjusted to the domain in question by means of the focal adjustment <em>selection</em>. <em>inventity I</em>: the fact that the <em>manner</em>-component is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject rotates, when rolling, around several axes. The approximate values of the element ‘to rotate around several axes’ are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
</tr>
<tr>
<td>predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

**causatívizado *inventity II*: (caused motion, agent-causation)**

Wenn Schlurck oben auf dem Amt zu thun hatte, sagte Hack-
The decompositional conceptual structure of 'kugeln' on abstraction level II
\textit{(causativized eventity II, caused motion, agent-causation)} is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
<th>grammatical relation: object</th>
<th>valency</th>
</tr>
</thead>
<tbody>
<tr>
<td>explicit</td>
<td>agent</td>
<td>eventity II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td>caused motion (agent-causation), effectless</td>
</tr>
<tr>
<td>implicit</td>
<td>The implications concerning eventity I and eventity I are analogous to basic eventity II.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textit{causativized eventity II: (caused motion, self-agentive causation)}

Sie \textit{kugelte} sich auf der Bühne der Philharmonie, sang im Liegen, auf dem Rücken, auf dem Bauch. (Leipziger Korpus)
Wirklich warf ich Säbel, Collet, Turban, Pumphöschen, kurz alles und jedes ab, wälzte und \textit{kugelte} mich wie toll umher, unwillkürlich, von dem Musenwasser getrieben. (Leipziger Korpus)
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

Er kugelte sich dann voller Begeisterung mit der Maus durch den Wintergarten und leckte sie ausgiebig mit seiner Reibesi- senzunge ab.
(http://www.tierhilfe-ratingen.de/Aktuelles/2005.01-Pflegekater/erfahrun gen.html, accessed on October 21 2007)

The decompositional conceptual structure of 'kugeln' on abstraction level II (causativized eventity II, caused motion, self-agentive causation) is as follows:

<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eventity II: exponents other than exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of eventity I</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eventity II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td></td>
</tr>
<tr>
<td>The implications concerning eventity I and eventity II are analogous to basic eventity II.</td>
<td></td>
</tr>
</tbody>
</table>

7.1.2.2.3 abstraction level III: hyperbole concepts There are no lexicalized concepts on abstraction level III and ad hoc uses were not found.

7.1.2.2.4 abstraction level IV: metaphorical concepts There are no lexicalized concepts on abstraction level IV and ad hoc uses were not found.

7.1.3 Nominal concept 'Ei', verbal concept 'eiern'

Eventity I and basic eventity I: The polysemous lexeme 'Ei' is of interest in its reading (von bestimmten Tieren, besonders Vögeln gelegtes von einer Schale umschlossenes, die Eizelle und meist Dotter und Eiweiß enthaltendes kugeliges, oft länglich-ovales Gebilde (Duden, 1989). The concept to move as the exponent denoted by the noun base is not lexicalized; it is explicated in 7.1.3.1. There is noncircular definition between eventity I and basic eventity I.
Ontology: Within the ontological framework used here, the entity denoted by the lexeme 'Ei' can be classified as *inentity*, more exactly as *absolute individual*; and the entity denoted by the lexeme 'eiern' as *eventity*, more exactly as *activity*.

Word Formation: noun base: 'Ei'; conversion, verbal suffix: -ern; simulative

7.1.3.1 The explication of the manner-component of the 'eiern'-eventity

As with 'kugeln', 'eiern' is a special case of 'rollen'. The manner-component first involves what has been explicated for the manner-component of the 'rollen'-eventity. The additional element involves the special way in which an egg rolls, which can be attributed to its shape properties. The egg wobbles and does not keep its course when it rolls; the course of a rolling egg is not predictable. The amplitude of the wobbling movement is wide but differs in width, and the frequency of the wobbling movement is high but irregular. Further, the way in which an egg rolls is evaluated as irregular.

7.1.3.2 The decompositional conceptual structure of the 'eiern'-eventity on four levels of abstraction

7.1.3.2.1 abstraction level I: to move as the exponent

*basic eventity I: (causeless motion)*

Dieses tanzende Ei *eiert* lustig auf dem Wagen hin und her, wenn er durch die Gegend gezogen wird.  
(http://www.thetoyscompany.de/Katalog/Zwerge/zwerge.html, accessed on October 21 2007)

The decompositional conceptual structure of 'eiern' on abstraction level I (*basic eventity I, causeless motion*) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td><em>inentity I</em>: exponent denoted by</td>
</tr>
<tr>
<td>relation:</td>
<td>the noun base</td>
</tr>
<tr>
<td>subject</td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td><em>eventity I</em>:</td>
</tr>
<tr>
<td>relation:</td>
<td>manner-component</td>
</tr>
<tr>
<td>predicate</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
</tr>
<tr>
<td></td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>
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7.1.3.2.2 abstraction level II: to move like the exponent  Balls and bowls whose shape is not completely round qualify here. It is irrelevant here to which degree a ball’s or bowl’s shape deviates from completely round.

basic eventity II: (causeless motion)

Einfach war das nicht, anders als heute, eierten die schlecht gerundeten Holzkugeln ihrem Ziel entgegen. (IDS-Korpus)
Der Ball eierte so eigentümlich, dass er sie ohnehin nicht getroffen hätte.
(http://www.welt.de/print-wams/article602991/Urlaub_mit_Abschlag.html, accessed on December 19 2007)

The decompositional conceptual structure of 'eieren' on abstraction level II (basic eventity II, causeless motion) is as follows:
7.1.3.2.3 abstraction level III: hyperbole concepts

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventity II:</em> exponents other than the exponent denoted by the noun base which qualify for the <em>manner</em>-component, with certain properties of the exponent being readjusted in terms of <em>inventity I</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity II:</em> unmodified <em>manner</em>-component with the values of the manner elements being readjusted</td>
<td><em>inventity I:</em> the fact that the exponent 'El' is implied governs by means of <em>domain mapping</em> the interpretation that the exponent denoted by the subject is not completely round. The approximate values of the element 'not completely round' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>. <em>eventity I:</em> the fact that the <em>manner</em>-component is implied governs by means of <em>domain mapping</em> the interpretation that the exponent denoted by the subject wobbles when rolling and does not keep its course. The approximate values of the elements 'to wobble when rolling' and 'not to keep its course' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>sudden, effeetless</td>
<td></td>
</tr>
</tbody>
</table>
what has been explicated for the manner-component of the 'to roll'-eventy is not present here. In Modification I, the exponent (which is - ontologically spoken - in all the cases an absolute individual) wobbles when it executes a path motion.

**basic eventy III:** (causeless motion)

Jegliche Langatmigkeit, die diese Nacht entbehrte, erfuhr der Hörer in der Londoner U-Bahn, wie der folgende Titel „Tube“ genannt, und es ist ja bekannt, daß diese ewig lang braucht und ein wenig quietscht und eiert wie ein überblasenes Saxophon in quirligen Triolentäufchen und auf guten Strecken schaukelt wie eine sich langsam wiegende Basline. (IDS-Korpus)

Um 23.50 Uhr eiert auch Jean-Claude Spillmann durch das Zuschauerspalier. (IDS-Korpus)

Zwischen zwei locker gespannten Seiten eierden die Freiwilligen dem anderen Ufer zu - immer darauf bedacht, nicht zu früh ein Bad zu nehmen. (IDS-Korpus)

Sonst eiert der Weihnachtsmann ja fast immer nur mit Sack und Schlitten durch den Schnee (IDS-Korpus)

...die letzten Liebesträume verlassen ihre klapprigen Autos und eieren stadtgewärtts (IDS-Korpus)

„Das war postmodern“, dachte ich, während ich die Treppen hoch eierte. (Leipziger Korpus)

Mit nicht einmal einem Jahr eierte er bereits in Läufer- schuhen, aber mit einem Putter, auf Greens herum. (Leipziger Korpus)

Der kleine Mann sah aus, als ob er komplett zugekrokst wäre und eierte, sich selbst zurschaustellend über die Bühne. (http://www.in-your-face.de/konzert_595.htm, accessed on October 21 2007)

Ich eierte in 10,47s ins Ziel und verstand die Welt nicht mehr. (http://www.till-helmke.de/main1.htm, accessed on October 21 2007)


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The decompositional conceptual structure of 'eiern' on abstraction level III (basic entity III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: predicate</td>
<td>eventity III: modified manner-component</td>
<td>eventity I: the fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the exponent denoted by the subject wobbles when executing a path motion, that the amplitude of the wobbling movement is wide but differs in width, that the frequency is high but irregular, and that the changes of direction are abrupt. The approximate values of the elements 'wide, irregular amplitude', 'high, irregular frequency', and the force-dynamics element 'abrupt changes of direction' are adjusted to the domain in question by means of the focal adjustment selection.</td>
</tr>
</tbody>
</table>

| valency | only exponent present | causeless, effectless |

Modification II: Modification II involves only the element that an exponent (which is - ontologically spoken - in all the cases an absolute individual) executes a path motion and does not keep its course.

*basic eventity III: (causeless motion)*
Jegliche Langatmigkeit, die diese Nacht entbehrte, erfuhr der Hörer in der Londoner U-Bahn, wie der folgende Titel „Tube“ genannt, und es ist ja bekannt, daß diese ewig lang braucht und ein wenig quietscht und eiert wie ein überblasenes Saxophon in quirligen Triolenläufen und auf guten Strecken schaukelt wie eine sich langsam wiegende Baßlinie. (IDS-Korpus) Grund für die zahlreichen Eiszeiten in der Erdgeschichte ist nach Ansicht von Wissenschaftlern die Tatsache, daß die Erde um die Sonne „eiert“: Unser Planet bewegt sich nicht gleichmäßig um die Sonne, sondern schlingert leicht auf Bahnen, die sich nach einigen tausend Jahren wiederholen. (IDS-Korpus)

Mond und Erde eiern auf ihren leicht elliptischen Bahnen. Auf der Nebenspur und unter Alkohol wohl auch neben der Spur eierte ein 28-jähriger aus Chicako mit seinem kleinen Fiat 127 in dieselbe Richtung. (Leipziger Korpus) Er erinnert sich noch an „Kapitän könische Taxe“, einen Holländer, der auf einem Fahrgestell mit ovalen und eckigen Rädern durch die Manege eierte (Leipziger Korpus)

The decompositional conceptual structure of 'eiern' on abstraction level III (basic eventity III, causeless motion) is as follows:
### CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS 111

<table>
<thead>
<tr>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>grammatical relation: subject</strong></td>
<td><em>event</em> III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the <em>manner</em>-component on abstraction level II</td>
</tr>
<tr>
<td><strong>grammatical relation: predicate</strong></td>
<td><em>event</em> III: modified <em>manner</em>-component</td>
</tr>
<tr>
<td><strong>valency</strong></td>
<td>only exponent present</td>
</tr>
</tbody>
</table>

Modification III: In Modification III, the exponent (which is - ontologically spoken - in all the cases an *absolute individual*) rotates about its axis and wobbles. As in the case of the concept on abstraction level II, it is irrelevant to which degree the rotating exponent deviates from an ideal axis.

**Basic event* III: *(causeless motion)*

Das System „ciert” um einen Schwerpunkt, der nicht im Mittelpunkt der Erde liegt, sondern im Erdmantel. (IDS-Korpus)

Und obwohl sie sich ganz locker in die modernen Übungen fallen lässt, sieht man bei ihr eine Verliebtheit in das Bild
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

The decompositional conceptual structure of 'eiern' on abstraction level III
(basic eventity III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation:</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject</td>
<td>eventity III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td>eventity III: modified manner-component</td>
<td></td>
</tr>
</tbody>
</table>

valency: only exponent present
causeless, effectless

7.1.3.2.4 abstraction level IV: metaphorical concepts
Within the discourse domain, the verb 'eiern' has the meaning 'not to take up a clear position'.

abstract basic eventity: (causeless abstract motion)
Seinerzeit und bis heute eiert Oberbürgermeisterin Petra Roth (CDU) als Aufsichtsratsvorsitzende gewaltig, wenn es um die Perspektiven der Messe geht. (IDS-Korpus)
So sehr kam Müntefering ins Schleudern, so sehr eierte er rum, daß die Deutsche Presse-Agentur über ihre Auswertung des DLF-Interviews um 8.47 Uhr schrieb: „Müntefering nimmt Stollmann in Schutz“. (Leipziger Korpus)
Auf Anfrage der taz eierte der Chefredakteur Jost Springensguth erst ziemlich herum und raunte dann von Gärners Droste-Bild, das „nicht nachvollziehbar“ sei. (Leipziger Korpus)
Ich rief also bei der ESAG an, was das soll, der Hotline-Mitarbeiter eierte hilflos herum und versprach einen Rückruf, der nie erfolgte.
(http://www.stromtip.de/rubrik2/15754/14/Eine-Wechsel-Odyssee.html, accessed on October 21 2007)
Die EKD hingegen eierte herum: Man solle den Film „weder empfehlen noch skandalisieren“. (http://www.kath.net/detail.php?id=7230, accessed on October 21 2007)
Einige unser hohen Herren eierten in Sachen innere Sicherheit jahrelang gewaltig herum.
(http://www.deeskalation-so-nicht.de/alle-Aspekte.html, accessed on October 21 2007)

The decompositional conceptual structure of ‘eiern’ on abstraction level IV (abstract basic entity, causeless abstract motion) is as follows:
### CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td><em>inventory IV</em>: concrete or abstract exponent</td>
<td><em>eventity I</em>: the fact that certain aspects of the <em>manner</em>-component are implied by the <em>manner</em>-component. The interpretation that the positions are changed with high but irregular frequency and that the positions differ from each other generally considerably - they differ, however, to varying degrees. Both the changes of position and the degree to which they vary is evaluated as erratic. The approximate values of the elements 'high but irregular frequency' and 'considerable but varying differences in the positions which are taken up' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td><em>eventity IV</em>: fictive motion event which is motivated by the <em>manner</em>-component</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

#### 7.2 Moved Objects

**7.2.1 Nominal concept ‘Schaukel’, verbal concept ‘schaukeln’**

*inventory I* and *basic eventity I*: The polysemous lexem ‘Schaukel’ is of interest here in its reading an zwei Seilen, *Ketten o.ä. waagerecht aufgehängtes Brett, auf dem sitzend man hin- und herschwingt*, and the polysemous lexeme ‘schaukeln’ in its reading auf einer *Schaukel o.ä. auf und ab, vor und zurück, hin und her schwingen*. (Duden, 1989). There is noncircular definition between *inventory I* and *basic eventity I*.

**Ontology:** Within the ontological framework used here, the entity denoted by the lexeme ‘Schaukel’ can be classified as *inventory*, more exactly as
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

*absolute individual*; and the entity denoted by the lexeme ’schaukeln’ as *entity*, more exactly as *activity*.

**Word Formation:** noun base: ’Schaukel’; conversion, verbal suffix: -’n’; instrumental, simulative

7.2.1.1 The explicating of the *manner*-component of the ’schaukeln’-
*eventity*

The *manner*-component of the ’schaukeln’-*eventity* can be explicating as follows: the exponent ’Schaukel’ is hung up so that it can swing freely. It swings to and fro, describing a convex arc-shaped path.

7.2.1.2 The decompositional conceptual structure of the ’schaukeln’-
*eventity* on four levels of abstraction

7.2.1.2.1 abstraction level I: to move as the exponent Since the ’schaukeln’-*eventity* is, in its most literal reading, instrument-shaped motion and not exponent-shaped motion, it holds true for abstraction level I that the ’Schaukel’ is used as an instrument when it is set into motion.

**basic eventity I: (causeless motion)**

Er zeigte dem Mädchen eine Schaukel und sagte: „Schaukeln ein bisschen!” Das Mädchen schaukelte in einer Schaukel hin und her und pendelte so fest, wie sie konnte. (http://www.afghan-aid.de/tales/maedriess.htm, accessed on October 21 2007)


The decompositional conceptual structure of ’schaukeln’ on abstraction level I (*basic eventity I, causeless motion*) is as follows:
### CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: subject</td>
<td>agent</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td><em>eventity I</em>: manner-component</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: adverbial phrase</td>
<td><em>eventity I</em>: exponent denoted by the noun base as instrument</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>agent and exponent as instrument present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

**causativized eventity I:** *(caused motion, agent-causation)*

An example was not found.

#### 7.2.1.2.2 abstraction level II: to move like the exponent

On abstraction level II, exponents which are - ontologically spoken - in all the cases *absolute individuals* and which are hung up and move freely qualify. They swing to and fro.

**basic eventity II:** *(causeless motion)*

Die Kinder mussten die Sprossenwand hinaufklettern, oder in die Ringe sitzen und *schaukeln*. (IDS-Korpus)

Kinderlaternen, die im Dämmerlicht vor den Augen *schaukeln*. (IDS-Korpus)

An langen Stahlseilen befestigt, *schaukeln* die Betonladungen durch die Luft. (IDS-Korpus)

Ein Schwarm blau-weiß gekleideter Schüler zieht an den Holzbaracken vorbei in Richtung Hauptstraße, tropfend nasse Wäsche *schaukelt* auf der Leine vor Zimmer...


Gute Nerven sind allerdings gefragt, denn die Kabine *schaukelt* in stattlicher Höhe über das Hafenbecken hinweg.

(http://www.dertour.de/.../app/content/resourceId/9243.html;jsessionid=BF51FDA1E67CBO76F971CE6892FFD5.prod03, accessed on December 19 2007)
The decompositional conceptual structure of 'schaukeln' on abstraction level II (basic event type II, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammatical relation: subject</td>
<td>inventory II: exponents other than the exponent denoted by the noun base which qualify for the manner-component</td>
<td></td>
</tr>
<tr>
<td>Grammatical relation: predicate</td>
<td>inventory II: unmodified manner-component</td>
<td></td>
</tr>
<tr>
<td>Valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

**causativized event type II:** (caused motion, agent-causation)

Die Wellen heben das Schiff und schaukeln meine Hänge-matte hin und her, Mantra süßer Schlummer in Morpheus Armen. (IDS-Korpus)

The decompositional conceptual structure of 'schaukeln' on abstraction level II (causativized event type II, caused motion, agent-causation) is as follows:

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammatical relation: subject</td>
<td>agent</td>
<td></td>
</tr>
<tr>
<td>Grammatical relation: predicate</td>
<td>inventory II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td></td>
</tr>
<tr>
<td>Grammatical relation: object</td>
<td>inventory II: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties being readjusted in terms of inventory I</td>
<td></td>
</tr>
<tr>
<td>Valency</td>
<td>agent and exponent present</td>
<td></td>
</tr>
</tbody>
</table>
**causativized eventity II:** *(self-agentive causation)*

Das war nicht mehr die Camilla, welche sich in der Hänge- 
matte *schaukelt*, auch nicht die, welche vom Turm Abreo- 
jos das niederländische Geschwader auf der Meeres- 
höhe erscheinen sah. (Leipziger Korpus)

The decompositional conceptual structure of 'schaukeln' on abstraction level II *(causativized eventity II, caused motion, self-agentive causation)* is as follows:

<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity II: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties being readjusted in terms of eventity I</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity II: unmodified manner-component with the values of the manner elements being readjusted</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent and exponent present (bivalency)</td>
<td></td>
</tr>
</tbody>
</table>

### 7.2.1.2.3 abstraction level III: hyperbole concepts

There are two modifications of the manner-component on abstraction level III.

**Modification I:** Modification I involves an exponent's oscillating movement which describes a convex, arc-shaped path and which is not around its center of gravity. The exponent is - ontologically spoken - in all the cases an *absolute individual*.

**basic eventity III:** *(causeless motion)*

An example was not found.

**causativized eventity III:** *(caused motion, agent-causation)*

Sie nahm ihn auf den Arm und *schaukelt* ihn bis er sich beruhigt hatte. Dann setzte sie ihn wieder in sein Lauf- 
-ställchen... 
The decompositional conceptual structure of 'schaukeln' on abstraction level III (causativized eventity III, caused motion, agent-causation) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: object</th>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
</tr>
</thead>
<tbody>
<tr>
<td>exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td>agent</td>
<td>eventity III: modified manner-component</td>
</tr>
<tr>
<td>value</td>
<td>eventity I: The fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the amplitude of the oscillating movement is moderate(^1) and remains approximately the same, that the frequency is moderate and remains approximately the same and that the changes of direction are smooth. The approximate values of the elements 'moderate, regular amplitude', 'moderate, regular frequency', and the force-dynamics element 'smooth changes of direction' are adjusted to the domain in question by means of the focal adjustment selection. (^1)When the amplitude of the 'schaukeln'-eventity is very short or very wide, the verb 'schaukeln' seems to be modified by an adverb.</td>
<td></td>
</tr>
</tbody>
</table>

**Modification II:** Modification II involves an exponent’s oscillating move-
ment which describes a concave, arc-shaped path around its center of gravity. The exponent is - ontologically spoken - in all the cases an absolute individual.

**basic eventity III: (causeless motion)**

Der Golf von Morbihan: Inseln wie Sand am Meer, Auray - ein malerisches Provinzstädtchen an der Rivière DAuray: Im kleinen Hafen an der Place St-Sauveur schaukeln bunte Kähne und Fischerboote. (IDS-Korpus)
Um Mitternacht beginnt das Schiff heftig zu schaukeln, und die Passagiere purzeln wie Weberschiffchen in den Hängemat ten hin und her. (IDS-Korpus)
Selbst die Gondeln schaukeln dabei. (IDS-Korpus)
Im Blümelteich schaukeln Cola-Flaschen auf dem Wasser. (IDS-Korpus)
Er schaukelt gar zu wild, bis der Stuhl nach hinten fällt: der Zappelphilipp in einer Struwwelpeter-Ausgabe von 1847. (IDS-Korpus)
Das schmale Boot schaukelte heftig im Fahrwasser der größeren Schiffe.
Auf Elefanten durch den Wald schaukeln: Vermutlich ist das auch ein Beitrag zum sanften Tourismus, daß man den Einheimischen gegenüber nicht nur als zahlender Protz, sondern auch als Mensch mit kleinen Schwächen auftritt. (IDS-Korpus)
Die See geht hoch und das Schiff schaukelt etwas.
(http://www.arktis-online.de/elz-ekg/p-st0309.html, accessed on January 2 2008)

The decompositional conceptual structure of 'schaukeln' on abstraction level III (**basic eventity III, causeless motion**) is as follows:
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS  121

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>invention III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>invention III: modified manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

**causatived eventity III:** *(caused motion, agent- causation)*

Oder den italienischen Presse-Tycoon, AC-Milan-Besitzer und Ex-Ministerpräsidenten Silvio Berlusconi, der mit fünf schwerbewaffneten Leibwächtern (ein Kieferer: „Als er und seine Truppe durch den Scanner gingen, hat’s Granada g’spielt“), einem defekten Auto (die Ölspur zog sich bis ins Stadion) und einem Bambino Luigi (6) erschienen war, den er bis zum bitteren Ende auf den Knien schaukelte. (IDS-Korpus)

Während der Bus die Gäste in den Schlummer schaukelte, wird im Büro im ersten Stock von U Fleku der Tagesumsatz berechnet. (IDS-Korpus)

Der kleine Beduinengaul schaukel dich durch diese Schlucht der Verheißung und dann steht das Wunder plötzlich vor dir; zunächst nur handtuchbreit zwischen den dunklen Wänden des Siq aufschimmernd, mit jedem Schritt größer, weiter, überwältigender werdend: die dreißigstark Meter hohe Fassade von Al Khazne Far‘un, des Schatzhaus des Pharao. (IDS-Korpus)

The decompositional conceptual structure of 'schaukeln' on abstraction level III *(causatived eventity III, caused motion, agent-causation)* is as follows:
### 7.2.1.2.4 abstraction level IV: metaphorical concepts

There are no lexicalized concepts on abstraction level IV and *ad hoc* uses were not found.

### 7.2.2 Nominal concept 'Wippe', verbal concept 'wippen'

**inventity I and basic eventity I:** The meaning of the lexeme 'Wippe' is *(als Spielgerät für Kinder) aus einem, in der Mitte auf einem Ständer aufliegendem, kippbar angebrachten Balken, Brett oder ähnlichen bestehende Schaukel, auf deren beiden Enden sitzend man wippend auf- und abschwingt.* The polysemous lexeme 'wippen' is of interest here in its reading *auf einer Wippe (...) auf- und abschwingen.* (Duden, 1989) There is noncircular definition between *inventity I* and *basic eventity I.*

**Ontology:** Within the ontological framework used here, the entity denoted by the lexeme 'Wippe' can be classified as *inventity,* more exactly as

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
<th>grammatical relation: object</th>
</tr>
</thead>
<tbody>
<tr>
<td>explicit</td>
<td><em>eventity III:</em> modified manner-component</td>
<td><em>inventity III:</em> exponents other than exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
</tr>
<tr>
<td>implicit</td>
<td>The implications concerning certain aspects of the manner-component are analogous to <em>causativized eventity</em> of Modification I.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th></th>
<th>caused motion (agent-causation), effectless</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent and exponent present</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent</td>
<td>The implications concerning certain aspects of the manner-component are analogous to <em>causativized eventity</em> of Modification I.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
<th>grammatical relation: object</th>
</tr>
</thead>
<tbody>
<tr>
<td>explicit</td>
<td><em>eventity III:</em> modified manner-component</td>
<td><em>inventity III:</em> exponents other than exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
</tr>
<tr>
<td>implicit</td>
<td>The implications concerning certain aspects of the manner-component are analogous to <em>causativized eventity</em> of Modification I.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th></th>
<th>caused motion (agent-causation), effectless</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent and exponent present</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

absolute individual; and the entity denoted by the lexeme 'wippen' as eventity, more exactly as activity.

**Word Formation:** noun base: 'Wippe'; conversion, verbal suffix: -'n'; instrumental, similative

7.2.2.1 The explication of the manner-component of the 'wippen'-eventity

The manner-component of the 'wippen'-eventity can be explicated as follows: two people sit on each end of the 'Wippe' and move alternatingly up and down by pushing off from the ground with their feet.

7.2.2.2 The decompositional conceptual structure of the 'wippen'-eventity on four levels of abstraction

7.2.2.2.1 abstraction level I: to move as the exponent As the wippen-eventity is in its most literal reading instrument-shaped motion and not exponent-shaped motion, the 'Wippe' is used as an instrument when set into motion. It is, however, the movement of the 'Wippe' which gave rise to the concepts on abstraction levels II and IV.

**basic eventity I:** (causeless motion)

Andere hüpfen auf einem Trampolin, rutschten die Rutsche herunter, kletterten auf einem Klettergerüst, **wippten** auf einer Wippe, spielten Fußball.
(http://www.fcbg.de/grundschule_meldungen.htm, accessed on October 21 2007)
Erinnerst du dich an meinen Traum in dem ich und dein Stefan in der Schulaula auf einer Wippe saßen und miteinander wippten?

The decompositional conceptual structure of 'wippen' on abstraction level I (basic eventity I, causeless motion) is as follows:
<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation:</td>
<td>agent</td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td>eventity I:</td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td>manner-component</td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td>eventity I:</td>
<td></td>
</tr>
<tr>
<td>adverbial phrase</td>
<td>exponent as instrument</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>agent and exponent as instru-</td>
<td>causeless, effectless</td>
</tr>
<tr>
<td>ment present</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7.2.2.2.2 abstraction level II: to move like the exponent  There is no lexicalized concept on abstraction level II and ad hoc uses were not found.

7.2.2.2.3 abstraction level III: hyperbole concepts  Hyperbole concepts of 'wippen' have in common the element that an exponent executes a movement up and down or to and fro, for which it holds true that the exponent must be anchored somewhere or the exponent must be in permanent contact with a ground. This permanent contact is interpreted as an anchoring, i.e. the anchoring is fictive. Therefore, the scenario of the hyperbole concepts of the 'wippen'-eventity have an affinity to the scenario displayed by half of the 'Wippe', with the fixed point on which the plank is balanced being converted in either an actual or a fictive anchoring and with the focus being on the up and down movement of one end of the 'Wippe'. (This is probably the reason why the hyperbole concepts of 'wippen' involve a short amplitude and a high frequency). As far as scenarios with actual anchoring are concerned, there is either the possibility that the exponent is not flexible but flexibly anchored, or the possibility that the exponent is flexible and the anchoring is nonflexible. There are three modifications of the manner-component on abstraction level III.

Modification I: Modification I involves the flexible anchoring of a nonflexible exponent. The exponent, which is - ontologically spoken - in all the cases an absolute individual, moves up and down or to and fro.


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basic eventity III: (causeless motion)

An example was not found.

causativized eventity III: (caused motion, agent-causation)

Der Prinzipal schloß die Türe zwischen Laden und Kontor, *wippte* das Lineal nachdenklich auf und ab, und plötzlich nahm sein Gesicht einen forschenden, durchdringenden Ausdruck an. (Leipziger Korpus)

The decompositional conceptual structure of 'wippen' on abstraction level III (causativized eventity III, caused motion, agent-causation) is as follows:
### Chapter 7. German Exponent-Shaped Motion Verbs  

<table>
<thead>
<tr>
<th>Grammatical Relation</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>agent</td>
<td>eventity I: The fact that a certain aspect of the manner-component, namely the up and down movement of one end of the 'Wippe', is implied governs the interpretation that the exponent denoted by the object executes an oscillating movement, that the amplitude of the oscillating movement is short and remains approximately the same, that the frequency is high and remains approximately the same, and that the changes of direction are abrupt. The approximate values of the elements 'short, regular amplitude' and 'high, regular frequency' and the force-dynamics element 'abrupt changes of direction' are adjusted to the domain in question by means of the selection.</td>
</tr>
<tr>
<td>Predicate</td>
<td>eventity III: modified manner-component</td>
<td></td>
</tr>
<tr>
<td>Object</td>
<td>eventity III: exponents other than the exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>Valency</td>
<td>agent and exponent present</td>
<td>caused motion (agent-causation), effectless</td>
</tr>
</tbody>
</table>

**Modification II:** Modification II involves the nonflexible anchoring of a flexible exponent. The exponent, which is - ontologically spoken - in all the cases an absolute individual, moves up and down or to and fro.

**Basic eventity III:** (causeless motion)

Federn *wippen* auf ihren Hüten, die festlichen Uniformen,
Lederhosen, Schärpen und schwere Joppen dampfen in der Sommeronne. (IDS-Korpus)
...sah Oskar in der folgenden Zeit gleichaltrigen Knaben auf die Schultornister, an deren Seiten Schwämme und Läppchen der Schiefertafeln *wippen* und wichtig taten. (IDS-Korpus)
Das Bühnenbild ist so gutt-bunt wie die Farbenpalette in einem Malkasten, Petticoats *wippen* frech wie in den legendären 50ern. (IDS-Korpus)
Und ihre roten Korkenzieherlocken *wippen* im Rhythmus der Musik. (IDS-Korpus)
Im tiefroten Kleid und mit schwarzen Handschuhen bis über die Ellbogen kam die Tangotänzerin auf die Bühne, und beim Charleston *wippen* die langen Fransen an den Schlauchkleidern im Stil der 30er Jahre. (IDS-Korpus)
Und keck *wippte* der blonde Pferdeschwanz. (IDS-Korpus)
Der Hit ist die „Hängewippe“: Zwei Kinder können hier *wippen*, und zwar auf tellerartigen Sitzen, die an langen Stangen von oben wie an einer Waage hängen. (IDS-Korpus)
Schüler der Auhofschule (VS 51) beobachten fasziniert, wie die prächtigen Federn im Kopfschmuck des Azteken-Botschafters im Wind *wippen*. (IDS-Korpus)
Auch weiße, dünne Strümpfe hatte sie an, obgleich es noch ziemlich rauh war, und alles an ihr sah rund aus und quoll und *wippte*. (Leipziger Korpus)
Der Wirt war gut genährt, und sein mächtiger Bauch *wippte* bei jedem Schritt auf und ab.
(http://www.beam-ebooks.de/leseprobe.php?id=999923371, accessed on December 19 2007)

The decompositional conceptual structure of 'wippen' on abstraction level III (*basic entity III, causeless motion*) is as follows:
Modification III: Modification III involves an exponent’s permanent contact with a ground. This contact is interpreted as a fictive anchoring. The exponent, which is - ontologically spoken - in all the cases an absolute individual, moves up and down.

**basic eventity II:** *(causeless motion)*

Sie *wippte* leicht auf den Zehenspitzen auf und ab, die Arme hinter dem Rücken ihres Laborkittels verschrankt.

Der Hörer an ihrem Ohr zitterte, das rechte Bein *wippte* immer auf und ab.
(http://www.kahsine-blog-schreiben.de/, accessed on October 21 2007)

The decompositional conceptual structure of 'wippen' on abstraction level III (*basic eventity III, causeless motion*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity III: exponents other than the exponent denoted by the noun base</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity III: modified manner-component</em></td>
<td></td>
<td>The implications concerning certain aspects of the manner-component are analogous to <em>causativized eventity</em> of Modification I.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>only exponent present</th>
</tr>
</thead>
</table>
7.2.2.2.4 abstraction level IV: metaphorical concepts There are no lexicalized concepts on abstraction level IV and ad hoc uses were not found.

7.2.3 Nominal concept 'Wiege', verbal concept 'sich wiegen'

Inventity I and basic eventity I: The polysemous lexeme 'Wiege' is of interest here in its reading in der Form einem Kasten ähnliches Bett für Säuglinge, das auf zwei abgerundeten parallel zu Kopf und Fußenden verlaufenden Kufen steht oder in ein Gestell beweglich eingehängt ist, so daß man das Kind darin wiegen kann, and the polysemous lexeme 'sich wiegen' in its reading (eine kleine Kind, besonders in der Wiege) sanft schwingend hin- und herbewegen. (Duden, 1989). There is noncircular definition between inventity I and basic eventity I.

Ontology: Within the ontological framework used here, the entity denoted by the lexeme 'Wiege' can be classified as inventity, more exactly as absolute individual; the entity denoted by the lexeme 'sich wiegen' can be classified as eventity, more exactly as activity.

Word formation: noun base: 'Wiege'; conversion, verbal suffix: -'n'; simulative

7.2.3.1 The explication of the manner-component of the 'sich wiegen'-eventity

As cradles have either rounded rockers or a box in which a child lies which is hung up on a frame, the manner-component of the 'sich wiegen'-eventity can be explicated as follows: the exponent 'Wiege' either executes as a whole an oscillating movement which describes a convex, arc-shaped path around its center of gravity, namely in the case when the 'Wiege' has rounded rockers, or, when the exponent 'Wiege' consists of a box which is hung up on a frame, it is only a part of the 'Wiege', namely the box which executes an oscillating movement, which describes a convex, arc-shaped path around its center of gravity.

7.2.3.2 The decompositional conceptual structure of the 'sich wiegen'-eventity on four levels of abstraction

7.2.3.2.1 abstraction level I: to move as the exponent
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

**basic eventity I: (causeless motion)**

An example was not found.

**causativized eventity I: (caused motion, agent-causation)**

Dazu *riegte* er leise die goldene Wiege, und über der Wiege schwebte still ein leuchtender Heiligenschein.

(http://www.internet-maerchen.de/maerchen/peterchen09.htm, accessed on October 21 2007)

The decompositional conceptual structure of 'sich riegen' on abstraction level I (*causativized eventity I, caused motion, agent-causation*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: predicate</td>
<td><em>eventity I</em>: manner-component</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: object</td>
<td><em>eventity I</em> exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>agent and exponent present</td>
<td>caused motion <em>(agent-causation), effectless</em></td>
</tr>
</tbody>
</table>

7.2.3.2.2 abstraction level II: to move like the exponent  There are no lexicalized concepts on abstraction level II and *ad hoc* uses were not found.

7.2.3.2.3 abstraction level III: hyperbole concepts  There are two modifications of the *manner*-component on abstraction level III.

**Modification I:** Modification I involves an exponent’s to and fro movement describing a convex, arc-shaped path. The movement is not around the exponent’s center of gravity. The exponent is - ontologically spoken - in all the cases an *absolute individual*. 
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

**basic eventity III:** *(causeless motion)*

An example was not found.

**causativized eventity III:** *(caused motion, agent-causation)*

Schumacher hielt den Ball nicht, er nahm ihn auf und *wiegte* ihn hin und her. (IDS-Korpus)

„Wir hatten schon früher zu Hause immer einen guten Süßmost“, flocht die junge Bäuerin ein, während sie den viermonatigen Maurin in den Armen *wiegte*. (IDS-Korpus)

The decompositional conceptual structure of 'sich wiegen' on abstraction level III *(causativized eventity III, caused motion, agent-causation)* is as follows:
<table>
<thead>
<tr>
<th>Grammatical Relation</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>agent</td>
<td></td>
</tr>
<tr>
<td>Predicate</td>
<td><em>event III</em>: modified manner-component</td>
<td><em>event I</em>: the fact that certain aspects of the manner-component are implied by means of domain mapping the interpretation that the exponent denoted by the subject executes an oscillating movement, that the amplitude of the oscillating movement is wide and remains approximately the same, that the frequency is low and remains approximately the same, and that the changes of direction are very smooth. The approximate values of the elements 'wide, regular amplitude', 'low, regular frequency', and of the force-dynamics element 'very smooth changes of direction' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
</tr>
</tbody>
</table>

**Modification II:** Modification II involves an exponent’s oscillating movement which describes a concave, arc-shaped path around the exponent’s center of gravity. The exponent, which is - ontologically spoken - in all the cases an absolute individual, is anchored in a ground or in contact with a ground.

**basic event III:** (*causeless motion*)

Aber ihre Ribiselsträucher im Burghof, wo sie einen Garten angelegt hatte, *wegen sich* heute noch im Herbstwind. (IDS-Korpus)
Das Schilf *wieg* *t sich* über den zugefrorenen Wasserflächen im Wind, und die Sumpfgrasbüschel haben dicke Schneehäuben auf. (IDS-Korpus)

Auch auf diesem Erdhügel Blumen und Kerzen, deren Flammen im leichten Wind hin und her *wigen*. (IDS-Korpus)

...unter hohen, gelassenen Palmen wuchsen Orangen-, Limo-

nen- und Granatapfelbäume, *wigten sich* satt über dem mes-

serscharfen Glitzern von Bewässerungsgräben, die von dem

reichlich fließenden Strom gespeist wurden. (IDS-Korpus)

Die alten Bäume grünten schweigend und die reifen Halme

*wigten sich* leise im frischen Sommerwind. (IDS-Korpus)

The decompositional conceptual structure of 'sich wiegen' on abstraction level III (*basic eventity III, causeless motion*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventity III</em>: exponents other than the exponent denoted by the noun base</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity III</em>: modified manner-component</td>
<td>The implications concerning certain aspects of the manner-component are analogous to <em>causativized eventity</em> of Modification I.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>causeless, effectless</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
</tr>
</tbody>
</table>

*causativized eventity III*: (*caused motion, agent-causation*)

Die Herren *wieg* *ten* aber bedenklich die Köpfe, und tuchelten miteinander, damit der Lokführer nichts hören sollte. (IDS-Korpus)

Es *wieg* *te* die alte Linde ihr blühendes Haupt in dem Winde. (http://www.deutsche-liebeslyrik.de/xcham3.htm, accessed on October 21 2007)

The decompositional conceptual structure of 'sich wiegen' on abstraction level III (*causativized eventity III, caused motion, agent-causation*) is as follows:
### CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entity III: modified manner-component</td>
<td>agent</td>
<td>The implications concerning certain aspects of the manner-component are analogous to causativized entity of Modification I.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entity III: exponents other than exponent denoted by the noun base</td>
<td>agent and exponent present</td>
<td>caused motion (agent-causation), effectless</td>
</tr>
</tbody>
</table>

**causativized entity III: (self-agentive causation)**

Die hochbetagte Jubilarin sass mitten in einem sommerlichen Blumenmeer und *wiegte sich* leise zur Musik, als Bezirksamtsschreiber Jakob Eschenmoser als Beauftragter von Bezirksamtmann Waldemar Marquart erschien. (IDS-Korpus)

In dieser Zeit saß ich einmal an einem schwülen Nachmittage im Wipfel eines hohen Baumes, der am Abhänge stand, und *wiegte mich* auf den Ästen langsam über dem stillen tiefen Tal. (Leipziger Korpus)

The decompositional conceptual structure of 'sich wiegen' on abstraction level III (causativized entity III, caused motion, agent-causation) is as follows:
| grammatical | explicit                                  | implicit                                                                 |
| relation:   |                                          | The implications concerning certain aspects of the manner-                |
| subject     |                                          | component are analogous to *causativized event* of Modification II.       |
| grammatical | *entity III*: modified *manner*-        |                                                                          |
| relation:   | component                               |                                                                          |
| predicate   |                                          |                                                                          |
| grammatical | *entity III*: exponents other than      |                                                                          |
| relation:   | exponent denoted by the noun base       |                                                                          |
| object      |                                          |                                                                          |
| valency     | agent and exponent present              | *caused motion* (self-agentive *causation*), *effectless*                |

### 7.2.3.2.4 abstraction level IV: metaphorical concepts

Metaphorical concepts involve the element that an abstract entity executes a gently swaying movement. As the fictive motion event involves an oscillating movement which describes a convex, arc-shaped path which is not around the fictive exponent’s center of gravity, the metaphorical concept is motivated by Modification I of the hyperbole concept.

**abstract basic event:** *(causeless abstract motion)*

Aber es *wiegte sich* noch eine schöne Harmonie von blasenden Instrumenten auf den Wellen; ein leichtes Schiffchen trug alle die Seligkeit auf seinem Verdeck, still bedachtsam zog’s den Strom hinauf. (Leipziger Korpus)  
Auf diesem Rauschen und Glänzen *wiegte sich* sorglos eine zärtliche Weise, das Lied eines frohen und reinen Glücks.

(http://www.wissen-im-netz.info/literatur/ganghofer/waldrausch/2-05.htm, accessed on October 21 2007)

The decompositional conceptual structure of 'sich wiegen' on abstraction level IV *(abstract basic event, causeless abstract motion)* is as follows:
7.2.4 Nominal concept 'Pendel', verbal concept 'pendeln'

*Inentity I and basic eventity I:* The meaning of the lexeme 'Pendel' is (Physik) starrer Körper, der unter dem Einfluß der Schwerkraft kleine Schwingungen um eine horizontale Achse ausführt. (Duden, 1989). The concept to move as the exponent denoted by the noun base is not lexicalized; it is explicated in 7.2.4.1. There is noncircular definition between *inentity I* and *basic eventity I.*

**Ontology:** Within the ontological framework used here, the entity denoted by the lexeme 'Pendel' can be classified as *inentity*, more exactly as *absolute individual*; the entity denoted by the lexeme 'pendeln' can be classified as *eventity*, more exactly as *activity*.

**Word Formation:** noun base: 'Pendel'; conversion, verbal suffix: '-n', simulative

7.2.4.1 The explication of the manner-component of 'pendeln'-eventity

The manner-component of the 'pendeln'-eventity can be explicated as follows: the exponent 'Pendel' hangs from a fixed point and swings freely to and fro.
7.2.4.2 The decompositional conceptual structure of the 'pendeln'-
eventity on four levels of abstraction

7.2.4.2.1 abstraction level I: to move as the exponent

basic eventity I: (causeless motion)

Unlustig pendelte das Pendel hin und her und überlegte dabei für sich, was es wohl machen könnte, um wieder Frieden zu finden.  
(http://www.online-roman.de/haare-019.html, accessed on October 21 2007)

Das Zamboni'sche Pendel pendelt mit einem Batteriesatz ausgestattet gut 150 Jahre lang mehr oder weniger stark hin und her.  

The decompositional conceptual structure of 'pendeln' on abstraction level I (basic eventity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation:</td>
<td>inventory I: exponent denoted by the noun base</td>
</tr>
<tr>
<td>subject</td>
<td>eventity I: manner-component</td>
</tr>
<tr>
<td>predicate</td>
<td>only exponent present</td>
</tr>
</tbody>
</table>

7.2.4.2.2 abstraction level II: to move like the exponent  On abstraction level II, exponents which are - ontologically spoken - in all the cases an absolute individual and which are hung from a fixed point so that they can swing freely qualify.

basic eventity II: (causeless motion)

Elend und wütend pendelte der Ausgelieferte über dem Abgrund: „Ich war gestürzt, wie Ikarus, der versucht hatte, mit künstlichen Flügeln die Sonne zu erreichen.” Aber, entmutigt war Emil Zopfi noch lange nicht. (IDS-Korpus)

Die Katzenklappen bestanden immer aus einem Kunststoffrahmen, in dem mehr oder weniger solide eine Plastikscheibe
PENDELTE.
(http://www.tsaue.de/katzenklappe.htm, accessed on October 21 2007)
...wie ich in einem dunklen Kanal langgeschwommen bin und mich beim Auftauchen fast zu Tode erschrocken hätte, weil schrag über mir eine Lampe pendelte.
(http://www.ciao.de/ELSA_3D_REVELATOR_InfraRed__Test_70
1877, accessed on December 19 2007)

The decompositional conceptual structure of 'pendeln' on abstraction level II (basic entity II, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventity II: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties being realigned in terms of inventity I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td>inventity II: unmodified manner-component</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

7.2.4.2.3 abstraction level III: hyperbole concepts There is one modification of the manner-component.

Modification I: Modification I involves an exponent’s execution of a path motion between two or more places. The distance between the places is unspecified. The exponents are probably mainly people and vehicles.

basic entity III: (causeless motion)

40.000 Fahrzeuge pendeln täglich zwischen Klosterneuburg und Wien, die Babenbergerstadt stöhnt unter der täglichen Verkehrslawine und den Staus. (IDS-Korpus)
20 Autobusse pendeln vor und nach der Veranstaltung zwischen Bad Kleinkirchheim und dem Open-air-Gelände. (IDS-Korpus)
Seitdem pendelt der Welser zwischen Italien, Deutschland und Österreich, um wieder Spezial-Vehikel zu erwerben. (IDS-Korpus)
Der 35jährige Dramaturg des Theaters, Darko Lukich, stammt aus Sarajewo und pendelt als „Festival Artistic Director“ zwischen Wien, Berlin, New York und Zagreb. (IDS-Korpus)

The decompositional conceptual structure of ‘pendeln’ on abstraction level III (basic event III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>event III: modified manner-component</td>
<td>event I: the fact that a certain aspect of the manner-component is implied governs by means of domain mapping the interpretation that the exponent’s execution of the path motion between two or more places takes place with high, regular frequency. The approximate values of the element ‘high, regular frequency’ are adjusted to the domain in question by means of the focal adjustment selection</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

7.2.4.2.4 abstraction level IV: metaphorical concepts Metaphorical concepts conceptualize the frequent change of intellectual or emotional positions in terms of a fictive path motion between two or more abstract places; thus they are motivated by the hyperbole concept.
**abstract basic event: (causeless abstract motion)**

Denn das Stück pendelt hilflos zwischen Künstlichkeit und Realismus, zwischen Intellekt und Gefühl - und macht die Preisflut für die Autorin eher verwunderlich. (IDS-Korpus)
Klinkans Geschöpfe pendeln zwischen Naivität und Dämonie. (IDS-Korpus)
Zwischen HipHop, Soul und Hardpop pendelt ihre „Groove-Attack“. (IDS-Korpus)
Eine von Teldec live für die Schallplatte mitgeschnittene Interpretation, die sich nicht mit dem folkloristischen Reiz be- gnügte, sondern auch die Doppelbödigkeiten dieser Musik aufspürte und mit bewundernswerten Flexibilität zwischen den Ausdrucksebenen pendelte. (IDS-Korpus)

The decompositional conceptual structure of 'pendeln' on abstraction level IV (abstract basic event, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation:</td>
<td><em>inventy IV</em>: abstract exponent</td>
<td>The implications concerning certain aspects</td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td>of the manner-component are analogous to</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>basic event</em> of Modification I.</td>
</tr>
<tr>
<td>grammatical relation:</td>
<td><em>inventy IV</em>: fictive motion event</td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td>which is motivated by Modification I of the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>hyperbole concepts</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

**7.2.5 Nominal concept 'Kreisel', verbal concept 'kreiseln'**

**inventy I and basic event I**: The polysemous lexeme 'Kreisel' is of interest in its reading (als technische Vorrichtung dienender,) meist symmetrischer Körper, der eine Drehbewegung um die eigene, in einem Punkt feste Achse ausführt bzw. kleines, meist kegelförmiges Spielzeug, das (durch Peitschenschläge) im Bewegung gesetzt, sich auf seiner Spitze schnell im Kreis dreht. (Duden, 1989). The concept to move as the
exponent denoted by the noun base is not lexicalized; it is explicated in 7.2.5.1.. There is noncircular definition between \textit{inventity I} and \textit{basic eventity I}.

\textbf{Ontology:} Within the ontological framework used here, the entity denoted by the lexeme 'Kreisel' can be classified as \textit{inventity}, more exactly as \textit{absolute individual}; the entity denoted by lexeme 'kieseln' can be classified as \textit{eventity}, more exactly as \textit{activity}.

\textbf{Word Formation:} noun base: 'Kreisel'; conversion, verbal suffix: -'n', similative

7.2.5.1 The explication of the \textit{manner}-component of the 'kieseln'-\textit{eventity}

The \textit{manner}-component of the 'kieseln'-\textit{eventity} can be explicated as follows: the 'Kreisel' has permanent contact with a ground and spins. It may additionally execute a path motion.

7.2.5.2 The decompositional conceptual structure of the 'kieseln'-\textit{eventity} on four levels of abstraction

7.2.5.2.1 abstraction level I: to move as the exponent

\textit{basic eventity I: (causeless motion)}

Vielleicht schaffen sie es, dass alle Kreisel kieseln.
(http://www.lschule.schuebelbach.ch/gallery2/main.php?g2_itemId=2436, accessed on October 21 2007)

The decompositional conceptual structure of 'kieseln' on abstraction level I \textit{(basic eventity I, causeless motion)} is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textit{inventity I}: exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textit{eventity I}: manner-component</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>
7.2.5.2.2 abstraction level II: to move like the exponent  Exponents, which are - ontologically spoken - in all the cases *absolute individuals* and which can spin, qualify here. The examples found for abstraction level II are partly with and partly without path motion.

**basic entity II: (causeless motion)**

Ein Junge probiert Breakdance auf dem Eis: Die linke Hand in den Boden gestemmt, *kreiselt* er souverän dicht über dem Boden. (IDS-Korpus)

Die rote Pappnase zwischen grau-meliertem Haar und Rauschebart präsentiert er dem dichten Kreis der Staunenden seine Jonglierrnummern: Teller *kreiseln* auf Holzstöckchen, Holzstöckchen spannen Seile, auf denen fliegende Kreisel landen. (IDS-Korpus)

Frentzen fing den Williams ein, andere *kreiselt* ins Kiesbett. (IDS-Korpus)

Gebrochene Linien, schnelle Drehungen und eine Vielzahl vertrackter Sprünge; interessante Soli folgen auf mitreiβende Gruppenszenen, in denen die Tänzer rasant über die Bühne *kreiseln* oder geometrisch exakt eine schier endlose Folge von Arabesken absolvieren. (IDS-Korpus)

Die Münze tanzte und *kreiselt*.


Fleur sah interessiert zu, wie der Ball in der Wanne *kreiselt* und dann zur Ruhe kam.
(http://www.members.chello.at/alexandra.bader/fleur/fleur1_neu.htm, accessed on October 21 2007)

The decompositional conceptual structure of 'kreiseln' on abstraction level II (*basic entity II, causeless motion*) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>identity II:</em> exponents other than the exponent denoted by the noun base which qualify for the <em>manner</em>-component, with certain properties of the exponent being readjusted in terms of <em>identity I</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>identity II:</em> unmodified <em>manner</em>-component with the values of the manner elements being readjusted</td>
<td><em>identity I:</em> the fact that the exponent ‘Kreisel’ is implied governs by means of <em>domain mapping</em> the interpretation that the exponent denoted by the subject is in permanent contact with a ground and, in some cases, that the exponent is present in a certain posture, e.g. when a coin executes the ‘kreiseln-<em>eventy</em>’. The nature of the elements ‘to be in contact with a ground’ and ‘to be present in a certain posture’ are adjusted to the domain in question by means of the focal adjustment <em>selection</em>. <em>identity I:</em> the fact that the <em>manner</em>-component is implied governs by means of <em>domain mapping</em> the interpretation that the exponent denoted by the subject rotates about the vertical central axis with high speed. The approximate values of the elements ‘to rotate about the vertical central axis’ and of the force-dynamics element ‘high speed’ are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

| valency | only exponent present |
7.2.5.2.3 abstraction level III: hyperbole concepts There is one modification of the manner-component on abstraction level III.

Modification I: Modification I involves an exponent’s execution of a path motion on an approximately circle-shaped path. There are no manner restrictions except for force-dynamics restrictions.

basic entity III: (causeless motion)

Da kreaselt der Ball wie am Schnürchen, da gab es fast perfekte Raumauflösung, da sah man Dribblings des Wunderwuzis Domingues wie etwa in der 38. Minute, daß es einem die Red’ verschlug. (IDS-Korpus)

Sie nahm ihr Glas und schwenkte es etwas, bis der Rotwein kreaselt, sie betrachtete die Farbe und ihr blass sonnengelber T-Shirt unter der Jacke.

Beim Stehendschießen schoß er Nulf, während so mancher Biathlet fröglich in der (Miniatur-) Strafrunde kreaselt.

Auf dem Rückweg fiel es mir deutlich schwerer das Hotel zu finden und ich kreaselt eine Weile durch die Altstadt von Colmar.
(http://www.freizeitmaus.de/unternehmungen/berichte/radfahren/frankreich2.htm, accessed on October 21 2007)

Und zu allem Überfluß kreaselt um ihren Kopf auch noch eine Mücke, die sie einfach nicht fangen konnte.
(http://www.ilja-dani.de/pech.htm, accessed on October 21 2007)

The decompositional conceptual structure of 'kreaseln' on abstraction level III (basic entity III, causeless motion) is as follows:
### CHAPTER 7. GERMAN EXONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entity III</em>: exponents other than the exponent denoted by the noun base and - partly - other than the exponents which qualify for the <em>manner</em>-component on abstraction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th><em>entity III</em>: modified <em>manner</em>-component</th>
</tr>
</thead>
</table>
| *entity I*: the fact that certain aspects of the *manner*-component are implied governs by means of *domain mapping* the interpretation that the exponent denoted by the subject executes the circle-shaped path motion with high speed. The approximate values of the force-dynamics element 'high speed' are adjusted to the domain in question by means of the focal adjustment *selection*.

| valency | only exponent present | *causeless, effectless* |

#### 7.2.5.2.4 abstraction level IV: metaphorical concepts

Abstract concepts are probably motivated by the hyperbole concept since they involve the idea that the abstract entity or the abstract entities execute a fictive circle-shaped path motion.

**abstract basic *entity: (causeless abstract motion)***

Anders als beim bayerischen „Märchenschloss“ Neuschwanstein, wo der Weltweit-Erlebnistourismus *krieselt*, ist die thüringische Wartburg noch zu guten Teilen nationale Angelegenheit - was nicht nur mit dem etwas zurückgebliebenen Tourismus - Marketing des Bundeslandes im Herzen Deutschlands (etwa 50 Kilometer von der Burg entfernt befindet sich der geographische Mittelpunkt der BRD) zu tun hat. (IDS-Korpus)

Die Worte *krieseln* in Mias Kopf. (IDS-Korpus)
The decompositional conceptual structure of 'kreiseln' on abstraction level IV (abstract basic eventity, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>'creativity IV' abstract exponent</td>
<td></td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic eventity of Modification I.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>'creativity IV' fictive motion event which is motivated by Modification I of the hyperbole concepts</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

7.3 Animals

7.3.1 Nominal concept 'Schlange', verbal concept 'sich schlängeln'

*Creativity I and basic creativity I*: The polysemous lexeme 'Schlange' is of interest here in its reading in zahlreichen Arten vorkommendes Kriechtier mit langgestrecktem, walzenförmigen Körper ohne Gliedmaßen, längen, vore gespaltener Zunge, das in Windungen gleitend sich fortbewegt, and the polysemous lexeme 'sich schlängeln' in its reading sich in Windungen gleitend fortbewegen (Duden, 1989). There is noncircular definition between creativity I and basic creativity I.

**Etymology**: The etymology is interesting insofar as the noun 'Schlange' is a nomen agentis which is derived from the verb 'schlingen'. The 'Schlange', therefore, is 'die sich Windele' (Khuge, 2002). The snake's characteristic way of moving was crucial for the naming.

**Ontology**: Within the ontological framework used here, the entity denoted
by the lexeme 'Schlange' can be classified as *inentity*, more exactly as *absolute individual*; and the entity denoted by the lexeme 'sich schlängeln' as *entity*, more exactly as *activity*.

**Word Formation:** noun base: 'Schlange'; conversion, verbal suffix: -In, umlaut; simulative

### 7.3.1.1 The explication of the manner-component of the 'sich schlängeln'-entity

When the snake snakes, the S-shaped body of the snake is what is actually characteristic about the 'sich schlängeln'-entity. This is, however, not a *path motion* but an *inner motion*. The snake does not move on a sinusously-shaped path. Here, path motion is, as in the case of 'rollen', due to friction. When there is no friction, the snake executes the 'sich schlängeln'-entity without executing a path motion. Thus there is a causal relationship between *inner motion* and *path motion*.

### 7.3.1.2 The decompositional conceptual structure of the 'sich schlängeln'-entity on four levels of abstraction

#### 7.3.1.2.1 abstraction level I: to move as the exponent

**basic entity I:** *(causeless motion)*

Dort schlängelte sich nämlich eine etwa einen halben Meter lange Tiger-Python. (IDS-Korpus)

Die Blindschleiche schlängelte sich durch das hohe Gras zu Puschls Lieblingsplatz, dem großen Findling am See hindurch. (IDS-Korpus)

Mutmaßungen wurden angestellt, weil die Kiste, aus der sich das Reptil geschlängelt haben soll, zuletzt unauffindbar war. (IDS-Korpus)

„Anselmus, lieber Anselmus“, wehte es ihm zu aus den Blättern, und o Wunder! an dem Stamm des Palmbaums schlängelte sich die grüne Schlange herab.

(http://www.romantik.literatur.com/texte/hoff_goldnetopf09.html, accessed on October 21 2007)

Kaum waren sie weg, schlängelte sich eine große Schlange aus dem Feld.

(http://www.fanfiction-world.de/viewtopic.php?p=5177&sid=a7211dd1de194cca2aedc52c48b3f03, accessed on October 21 2007)
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

The decompositional conceptual structure of 'sich schlängeln' on abstraction level I (basic entity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventy I</em>: exponent denoted by</td>
<td></td>
<td>the noun base</td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td><em>eventy I</em>: manner-component</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

7.3.1.2.2 abstraction level II: to move like the exponent There are no lexicalized concepts on abstraction level II and ad hoc uses were not found.

7.3.1.2.3 abstraction level III: hyperbole concepts There are four modifications of the manner-component on abstraction level III.

Modification I: Modification I is a case of path-shaped motion. It covers parades and convoys, which are conceptualized as something long and flexible. They move on a sinuously-shaped path which is additionally an *inner motion*. There is no causal relationship between *path motion* and *inner motion*. There are no further manner restrictions.

**basic eventy II: (causeless motion)**

In Braunschweig tanzten bei strahlendem Wetter über 200000 Schaulustige begeistert Samba, während *sich* der mit sechs Kilometern größte Karnevalsumzug Norddeutschlands unter dem Motto “Helau und Caramba, ganz Brunswik tanzt Samba” durch die Stadt schlängelte. (IDS-Korpus)

Kaum ein Durchkommen gab es gestern wieder für den 111 Nummern starken Lindwurm, der *sich* zwei Stunden lang durch den Stadtteil schlängelte. (IDS-Korpus)

Die erste Ginnheimer Western-Parade, organisiert vom Verein Abenteuerspielplatz Riederwald, schlängelte *sich* am Samstag durch den Stadtteil: von den breiten Straßen in den ehemaligen US-Housings durch die schmalen Gassen auf der anderen Seite der Hügelstraße und wieder zurück. (IDS-Korpus)
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

200 Zugnummern schlängeln sich am Sonntag durch die City. (IDS-Korpus)
Hinter Kljuc schlängelt sich der Bonner Konvoi etwa 50 Kilometer durch die serbische Teilrepublik. (IDS-Korpus)

The decompositional conceptual structure of 'sich schlängeln' on abstraction level III (basic event III, causeless motion) is as follows

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory III: exponents other than the exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>event III: modified manner-component</td>
<td>event I: the fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the exponent's sinuously-shaped path motion involves a large number of bends and that there is little distance between two bends. The approximate values of the elements 'a large number of bends' and 'little distance between two bends' are adjusted to the domain in question by means of the focal adjustment selection.</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

**Modification II:** Modification II is a case path-shaped motion as it involves an exponent’s executing a sinuously-shaped path motion. There are no further manner restrictions.

**basic event III:** (causeless motion)

Dazwischen schlängeln sich Inline-Skater und Speedliner - eine Mischung aus Skateboard und Tretroller - durch die Massen in den Hallen. (IDS-Korpus)
Der Bus schlängelte sich die Serpentinen nach oben, zwischen laublosen Bäumen hindurch,...
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

(http://www.janthor.com/whiteKHstory.html, accessed on October 21 2007)

Kleine Flüsse schlängeln sich durch das Land, das Wasser hat die Farbe von Tee und ist ganz klar. (IDS-Korpus)

Heisse Lava schlängelte sich mit ungeheurer Wut durch die Baumreihen des riesigen Waldes, wobei sie Bäume wie Streichhölzer knickte und sofort entfachte.


Wie Tränen schlängelten sich Schweißperlen über sein gesamtes Gesicht.


The decompositional conceptual structure of 'sich schlängeln' on abstraction level III (basic entity III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>Grammatical relation</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Entity III: exponents other than the exponent denoted by the noun base</td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic entity of Modification I.</td>
</tr>
<tr>
<td>Predicate</td>
<td>Entity III: modified manner-component</td>
<td>causeless, effectless</td>
</tr>
<tr>
<td>Valency</td>
<td>Only exponent present</td>
<td></td>
</tr>
</tbody>
</table>

Modification III: Modification III involves a single exponent's executing a simously-shaped path motion. There are two additional elements: first, the force-dynamics element, which is present within an environment which hinders the exponent's path motion or executes an opposing force (in Talmy's terms, the Antagonist) which can be overcome by the exponent (in Talmy's terms, the Agonist), (Talmy, 2003: 409-470); and second, the evaluative element with which the exponent can overcome the opposing force executed by the environment by being clever and skillful.

**basic entity III:** (causeless motion)

Dieser Weg wird von vielen Fußgängern jedoch nicht angenommen, sie schlängeln sich wagemutig zwischen Bussen und
wartenden oder anfahrenden Autos hindurch, um die Fahr
bahn zu überqueren und zur Grünanlage am Ambettbrunnen
in der Kirschstraße zu gelangen. (IDS-Korpus)
In den Straßen stauen sich die Autos, schlängeln sich die Mo
torräder durch eine chaotisch anmutende urbane Landschaft.
(IDS-Korpus)
Immer weniger Busse schlängeln sich durch die Kontroll-
posten vor den Toren Bethlehems, immer weniger Urlauber
streifen durch die Gassen der arabisch geprägten Altstadt
oder sitzen auf dem Manger-Platz (neu gepflastert mit deutsch-
em Spendengeld). (IDS-Korpus)
Wer eine Karte hat, schlängelt sich durch ein Labyrinth aus
Wänden ins Studio.
(http://www.archiv.theaterraalen.de/stuecke0203/bed_intres.htm, accessed
on December 23 2007)
Wurm schlängelt sich durch MySpace Viren, Trojaner und
anderes.
(http://www.webgurus.de/forum/showthread.php?t=12445, accessed on
December 23 2007)
Er schlängelte sich durch die Passanten, stets ein Auge auf
die Auslagen der Händler.
(http://www.forum.worldofplayers.de/forum/showthread.php?t=307483
&page=3, accessed on December 23 2007)
Er schlängelte sich durch eine Ansammlung, gold lackierter
victorianischer Eichenmöbel, die kaum noch Platz für etwas
anderes ließen.
(http://www.festa-verlag.de/download/pdf_leseproben_Wilson_Die-
Gruft.pdf, accessed on December 23 2007)

The decompositional conceptual structure of 'sich schlängeln' on abstraction
level III (basic entity III, causeless motion) is as follows:
### Table 7.1: German Exponent-Shaped Motion Verbs

<table>
<thead>
<tr>
<th>Grammatical Relation: Subject</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entivity III:</em> exponents other than the exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical Relation: Predicate</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entivity III</em> modified manner-component; Modification III involves the additional element that the environment hinders the exponent’s path motion or executes an opposing force which can be overcome by the exponent’s cleverly and skillfully executing a sinuously-shaped path motion. The nature of the element ‘hindering environment’ and the nature and the approximate values of the elements ‘to overcome the hindering environment’ and ‘clever and skillful’ are adjusted to the domain in question by means of the focal adjustment <em>selection.</em></td>
<td>The implications concerning certain aspects of the manner-component are analogous to <em>basic eventity</em> of Modification I.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

**Modification IV:** Modification IV involves the sinuous extension of something (e.g. streets, rivers, rails), which is conceptualized as a fictive motion event.

**Basic *eventity III:* (causeless motion)**

Entlang der Mainzer Landstraße *schlängelt sich* endlos ein Bauzaum und verbirgt einen riesigen Bauplatz. (IDS-Korpus)
Auf den Tischen im Bastelraum *schlängeln sich* derweil gebastelte Girlanden aus Krepp-Papier. (IDS-Korpus)
Kleine Flüsse *schlängeln sich* durch das Land, das Wasser hat die Farbe von Tee und ist ganz klar. (IDS-Korpus)
Der Weg *schlängelt sich* entlang verschiedener Sträucher und kleinerer Bäume bis er am nächsten Quergraben nach links abbiegt und an dem Graben entlang durch...
(http://www.stiftung-naturschutz-hh.de/boberg/infowege/wiesenweg.htm, accessed on December 23 2007)
385 Kilometer Schienen *schlängeln sich* durch Kurven und
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

Tunnels, über Viadukte und Pässe bis in die hintersten Ecken und Täler...
(http://www.disentis-sedrun.ch/de/navpage.cfm?category=WinterDS&subcat=AdventureDS&id=106748, accessed on December 23 2007)

The decompositional conceptual structure of 'sich schlängeln' on abstraction level III (basic entity III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>entity III: exponents other than the exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>entity III: modified manner-component</td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic entity of Modification I.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

7.3.1.2.4 abstraction level IV: metaphorical concepts Metaphorical concepts are motivated by Modification III. The abstract scenario is conceptualized as an exponent’s fictive path motion in an environment which executes an opposing force. This opposing force can be overcome by clever and skillful behavior.

abstract basic entity: (causeless abstract motion)

Da schlängelt sich ein harmloser und dummer Mensch angstvoll durch das Leben, und nichts könnte so erfreuen wie sein auf unsächlichem Glück beruhender Triumph. (IDS-Korpus)
Die Suche zwischen Wikinger Turm und Altstadt zieht sich hin, die Geschichte (Regie: Judith Kennel) schlängelt sich durch ein Labyrinth falscher Spuren.
(http://www.abendblatt.de/daten/2006/10/24/629561.html, accessed on December 23 2007)
Wurm schlängelt sich durch MySpace Viren, Trojaner und anderes.
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

The decompositional conceptual structure of 'sich schlängeln' on abstraction level IV (abstract basic entity, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entity IV</em>: concrete or abstract exponent</td>
<td></td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic entity of Modification I.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entity IV</em>: fictive motion event which is motivated by Modification III of the hyperbole concepts; Since Modification III involves the additional element that the environment hinders the exponent's path motion or executes an opposing force which can be overcome by the exponent's clever and skillfully executing a sinuously-shaped path motion, metaphorical concepts involve the idea that the exponent can overcome hindering elements by using clever tactics, which is conceptualized as the exponent's fictive sinuously shaped path motion. The nature of the element 'hindering elements' and the nature and the approximate values of the elements 'to overcome hindering elements' and 'clever tactics' are adjusted to the domain in question by means of the focal adjustment selection.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

7.3.2 Nominal concept 'Robbe', verbal concept 'robben'

*entity I* and *basic entity I*: The meaning of the lexeme 'Robbe' is *ein großes, in kalten Meeren lebendes Säugetier mit plumpen, langgestreckten, von dicht anliegendem kurzem Haar bedeckten Körper und flossenähnlichen Gliedmaßen*. (Duden, 1989) The concept to move as
the exponent denoted by the noun base is not lexicalized; it is explicated in 7.3.2.1. There is noncircular definition between inventity I and basic eventity I.

Etymology: As far as the noun 'Robbe', which is borrowed from Middle Low German, is concerned, there are, according to Kluge (Kluge, 2002), two hypotheses. The naming could be motivated by the seal's snout hairs because the Middle Low German word for 'rabbit' is robbe (ken). The underlying word for 'snout hairs' or 'bristle', however, is unattested. There is also the possibility that the 'Robbe' is named after its way of moving. 'Robbe' is, according to this hypothesis, derived from rubba, which is a common word for 'rub', 'scratch', 'scrub'.

Ontology: Within the ontological framework used here, the entity denoted by the lexeme 'Robbe' can be classified as inventity, more exactly as absolute individual; and the entity denoted by the lexeme 'robben' as eventity, more exactly as activity.

Word Formation: noun base: 'Robbe'; conversion, verbal suffix -en; simulative

7.3.2.1 Explication of the manner-component of the 'robben'-eventity

The manner-component of the 'robben'-eventity can be explicated as follows: a seal's typical way to move ashore, i.e. executing a path motion by lying on its belly and crawling.

7.3.2.2 The decompositional conceptual structure of the 'robben'-eventity on four levels of abstraction

7.3.2.2.1 abstraction level I: to move as the exponent

basic eventity I: (causeless motion)

Nur der Seelöwe fehlte. Geheimnisvoll angesagt wird die Nummer aus der „Dream factory”, robbt etwa ein Seelöwe die Treppe herauf? (IDS-Korpus)
Er war ein sehr sportlicher Seehund und übersprang ganz elegant die Außenmauern des Seehundbeckens, robbte schnell in Richtung des Flusses.
(http://www.lyrik-kriegundleben.de/Hannes.html accessed on December 23 2007)
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The decompositional conceptual structure of 'robben' on abstraction level I (basic eventity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory I: exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>entity I: manner-component</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

7.3.2.2.2 abstraction level II: to move like the exponent  People and animals lying on their bellies and crawling qualify here.

**basic eventity II: (causeless motion)**

Der Hund *robbt* auf dem Bauch zehn Meter weit, während der Hundeführer nebenhergeht. (IDS-Korpus)

Ich *robbte* das kleine Waldstück entlang, und dann sah ich ihn, den deutschen Soldaten. (IDS-Korpus)

Also schickte er die anderen Jungs vom Eis, *robbte* bis zur Einbruchstelle und zog den Jüngern aus dem Wasser. (IDS-Korpus)

Eine Welt brach zusammen an jenem Morgen, an dem er sich schwererbeulte aus seinem Laden auf den Bürgersteig *robbte*. (IDS-Korpus)

Konservative Politiker stellen daher die Frage, ob uniformierte Frauen weiterhin gleichberechtigt mit Männern durch den Schlamm *robben* sollen. (IDS-Korpus)

Celine Noelle *robbte* mit 6 Monaten und begann mit 8 Monaten zu krabbeln.
(http://www.plexusbrachialis.de/forum/messages/87.html, accessed on October 21 2007)

The decompositional conceptual structure of 'robben' on abstraction level II (basic eventity II, causeless motion) is as follows:
7.3.2.2.3 abstraction level III: hyperbole concepts  The concepts on abstraction level III involve the same exponents (probably mainly people) as the concept on abstraction level II. They just move in a different way. There are two modifications of the manner-component on abstraction level III.

Modification I: Modification I involves the element that the exponent sits or kneels on the ground by crawling.

basic eventity III: (causeless motion)

Sie wüsste nicht, wie auf einen jungen Mann reagieren, der nur auf Knien robben und sich sprachlich nicht verständigen kann. (IDS-Körpus)

Er robbte im Sitzen ein paar Meter zurück und griff nach der Tasche.

Dabei vollführte er die grotesksten Bewegungen und Verrenkungen und robbte auf den Knien über die Bühne.

The decompositional conceptual structure of ‘robben’ on abstraction level III (basic eventity III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>relation: subject</td>
<td><em>eventity II</em>: exponents other than the exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>eventity II</em>: unmodified manner-component</td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>
### CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity III</em></td>
<td>exponents other than the exponent denoted by the noun base</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity III</em></td>
<td>modified <em>manner</em>-component</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
<td></td>
</tr>
</tbody>
</table>

### Modification II:

Modification II involves an exponent’s slow and laborious execution of a path motion. There are no further manner restrictions. The exponents are - ontologically speaking - in all the cases *absolute individuals*, probably mainly people.

### basic eventity III: *(causeless motion)*

Zu wem der arme Kerl auch immer demütigt *robbe*, die Damen und Herren der feinen höfischen Gesellschaft, noch ganz erfüllt von den zivilisierten Segnungen des Verzeihens, weisen den Barbaren gnadenlos ab. (IDS-Körpures)

...um eine Fahrplanauskunft zu bekommen, an einem Bahnhofschalter in eine Schlange einreißen mußte, in der man langsam an die Spitze *robbe*.  
(http://www.zaiik.uni-koeln.de/AFS/Projects/MultiMedia/kombinatorische_opt/node0.html, accessed on October 21 2007)
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

The decompositional conceptual structure of 'robben' on abstraction level III (basic eventity III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventory III</em>: exponents other than the exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity III</em>: modified manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*eventity I*: the fact that a certain aspect of the manner-component is implied, namely the force-dynamics element of the 'robben'-*eventity*, governs by means of domain mapping the interpretation that the exponent denoted by the subject executes a path motion within an environment which executes an opposing force that makes the exponent’s path motion laborious and slow. This opposing force can be overcome by the exponent’s executing the greater relative force. This interpretation is motivated by the fact that a seal must overcome a considerable amount of frictional resistance when executing the 'robben'-*eventity*. The nature and approximate values of the force-dynamics elements 'opposing force' and 'greater relative force' are adjusted to the domain in question by means of the focal adjustment *selection*.

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
<td></td>
</tr>
</tbody>
</table>

7.3.2.2.4 abstraction level IV: metaphorical concepts  Metaphorical concepts are motivated by Modification II. The abstract scenario involves the idea that an exponent slowly and laboriously executes a fictive path motion.
abstract basic event: (causeless abstract motion)

Beim Umsatz robbt sich die Gruppe an die 50-Milliarden-Marke heran. (IDS-Korpus)
An den „Bestand“, wie es im Branchenjargon heißt, robinen sich die Risikoschützer erst jetzt allmählich heran. (IDS-Korpus)
Während noch die unterlegenen Spielerinnen vom enthroneten Titelverteidiger Rot Weiß Köln gehörten wurden, robbten sich die Berlinerinnen bereits aus Treppchen ran, um dann mit einem schrillen Jubelschrei die obere Stufe zu erklommen. (IDS-Korpus)
Beharrlich robbt das Häufchen der betont nationalliberalen Gesinnung ins Zentrum der FDP. (IDS-Korpus)
So robben sich die Frauen allmählich vor in der SPD, manchmal - weniglich unfreiwillig - mit grüner Hilfe. (IDS-Korpus)

The decompositional conceptual structure of 'robben' on abstraction level IV (abstract basic event, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: subject</td>
<td>inventory IV: concrete or abstract exponent</td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic event of Modification II.</td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td>event: fictive motion event which is motivated by Modification II of the hyperbole concepts</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

7.3.3 Nominal concept 'Wiesel', verbal concept 'wieseln'

inventory I and basic event I: The meaning of the lexeme 'Wiesel' is, according to the Duden, (Duden, 1989) ein kleines, zu den Mardern gehörendes, kleine Wirbeltiere jagendes Raubtier, mit oberseits braun-rotem, unterseits weißem Fell; the meaning of the lexeme 'wieseln' is mit flinken, behenden Bewegungen schnell laufen. There is noncircular definition between inventory I and basic event I.
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Ontology: Within the ontological framework used here, the entity denoted by the lexeme 'Wiesel' can be classified as *inentity*, more exactly as *absolute individual*; and the entity denoted by the lexeme 'wieseln' as *eventity*, more exactly as *activity*.

Word Formation: noun base: 'Wiesel'; conversion, verbal suffix -n; simulative;

7.3.3.1 Explication of the manner-component of the 'wieseln'-eventity

The *manner*-component of the 'wieseln'-*eventity* involves the element that the exponent 'Wiesel' executes a path motion by running and executing a large number of changes of direction, which recur with high, irregular frequency, in a very controlled manner.

7.3.3.2 The decompositional conceptual structure of the 'wieseln'-eventity on four levels of abstraction

7.3.3.2.1 abstraction level I: to move as the exponent

*basic eventity I:* (causeless motion)

An example was not found.

7.3.3.2.2 abstraction level II: to move like the exponent  Exponents which use their legs and walk or run when they execute the 'wieseln'-eventity qualify here.

*basic eventity II:* (causeless motion)

Kommentator Jörg-Rainer Gast *wieselte* mit seinem drahtlosen Mikro von Wettkampf zu Wettkampf.  
(http://www.klaus-michalski.de/La56/La57/lA57.html, accessed on October 21 2007)

Eine schlanké, anmutig-katzenähnliche Gestalt *wieselte* durch den Raum.  
(http://www.fantasyguide.de/429.0.html, accessed on October 21 2007)

Überhaupt Hannelore Weingärtner. Sie *wieselte* gewissermaßen durch die Räumlichkeiten.  
(http://www.kreuznacherdiakonie.de/Diakonenschule/downloaddateien/)
The decompositional conceptual structure of 'wieseln' on abstraction level II (basic eventity II, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory II: exponents other than the exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity II: unmodified manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

7.3.3.2.3 abstraction level III: hyperbole concepts There is one modification of the manner-component on abstraction level III.

Modification I: Modification I differs from the manner-component in that the exponents, which are - ontologically spoken - in all the cases absolute individuals, do not walk when they quickly execute a path motion.

Basic eventity III: (causeless motion)

Der Smart wieselt nun auch in den USA über die Straßen.
(http://www.ngz-online.de/public/article/aktuelles/auto/verkehr/90300, accessed on October 21 2007)

Leadgitarrist Heiko wieselt die Saiten rauf und runter und es machte Spaß festzustellen, daß das Auge den Fingern kaum folgen konnte.
The decompositional conceptual structure of 'wieseln' on abstraction level III (basic eventity III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>Grammatical Relation</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td><em>eventity III</em>: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
</tr>
<tr>
<td>Predicate</td>
<td><em>eventity II</em>: modified manner-component</td>
<td></td>
</tr>
</tbody>
</table>

*eventity I*: the fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the exponent's path motion is executed quickly and that it involves a large number of abrupt changes of direction, which recur with high but irregular frequency and which are executed in a very controlled manner. The approximate values of the elements 'quickly', 'a large number of changes of direction', 'high, irregular frequency' and 'in a very controlled manner' are adjusted to the domain in question by means of the focal adjustment selection.

Valency: only exponent present. *Causeless, effectless*
7.3.3.2.4 abstraction level IV: metaphorical concepts There are no lexicalized concepts on abstraction level IV and ad hoc uses were not found.

7.3.4 Nominal concept 'Krebs', verbal concept 'krebsen'

*inventory I and basic eventity I*: The polysemous lexeme 'Krebs' is of interest here in its reading (in vielen Arten vorkommender) im Wasser lebender und durch Kienen atmender Gliederfüßer mit einem von einem Panzer aus Chitin umhüllten Leib (zwei Paar Fühlern und mindestens vier Beinpaaren (deren vorderstes zu großen Scheren umgebildet ist) (Duden, 1989); and the polysemous lexeme 'krebsen' in its reading sich mühsam (kriechend, tastend) irgendwo hinbewegen. There is noncircular definition between inventory I and basic eventity I.

**Ontology:** Within the ontological framework used here, the entity denoted by the lexeme 'Krebs' can be classified as *inventory*, more exactly as *absolute individual*; and the entity denoted by the lexeme 'krebsen' as *eventity*, more exactly as *activity*.

**Word Formation:** noun base: 'Krebs'; conversion, verbal suffix -en; simulative;

7.3.4.1 The explication of the *manner*-component of the 'krebsen'-eventity

The *manner*-component of the 'krebsen'-eventity is a special case because it is based on a misconception about crayfish which does not correspond to the way in which crayfish move in reality, namely in the misconception that they execute a path motion slowly, laboriously, and backwards.

7.3.4.2 The decompositional conceptual structure of the 'krebsen'-eventity on four levels of abstraction

7.3.4.2.1 abstraction level I: to move as the exponent

*basic eventity I: (causeless motion)*

Nur wenige krebsen herum: Neben dem Braumbären ist die zweite europaweit bedrohte Rarität im Gitschtal der Dohlenkrebs. (IDS-Korpus)
The decompositional conceptual structure of 'krebsen' on abstraction level I
(*basic eventity I, causeless motion*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventity I:</em> exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7.3.4.2.2 abstraction level II: *to move like the exponent* Exponents which execute a path motion by crawling slowly and laboriously qualify here.

*basic eventity II: (causeless motion)*

\[\text{Es krebst jede Menge Gewürm durcheinander. (IDS-Korpus)}\]

The decompositional conceptual structure of 'krebsen' on abstraction level II (*basic eventity II, causeless motion*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventity II:</em> exponents other than the exponent denoted by the noun base which qualify for the manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity II:</em> unmodified manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| valency | only exponent present | causeless, effectless |

7.3.4.2.3 abstraction level III: hyperbole concepts There is one modification of the manner-component on abstraction level III.

Modification I: Modification I involves an exponent's slow and laborious execution of a path motion. There are no further manner restrictions. The exponents are - ontologically speaking - in all the cases *absolute individuals.*
**basic eventity III:** *(causeless motion)*

Leute legen sich mit Schlangen in den Schlafsack und *krebsen* wie Robinson auf einsamen Inseln herum. (IDS-Korpus)

Viele Formel-1-Fans wundern sich, warum nach einem Jahr Lauda die Ferraris weiter auf in der Kriechspur *krebsen*. (IDS-Korpus)

Bislang hat sich kein Langläufer qualifiziert, *krebsen* Kombinierer und Biathleten zum Teil auf der Kriechspur, selbst die Adler wurden so gerupft, daß von Überfliegern keine Rede mehr sein kann, und im Schnellauf rannten zumindest Hadschiff und Eminger bis dato vergeblich dem Olympiaklima nach, das für sie nur eine Formsache zu sein schien. (IDS-Korpus)

Ach ja, die *krebsen* irgendwo (vielleicht im Irak) herum. (IDS-Korpus)

Alle weiteren Intercity-Züge *krebsen* vier Stunden und 50 Minuten von Villach nach Wien. (IDS-Korpus)

„Auf, du junger Wandersmann...“. Anscheinend sind Jugendliche nicht nur vom Mountainbiken, Drachenfliegen oder Paragliden fasziniert, sondern „*krebsen*” auch ganz gern in den Bergen und auf den Almen herum. (IDS-Korpus)

Oder eben: Jüngers Hände, wie sie knochig übers Blatt *krebsen*. (IDS-Korpus)

*Krebsen* zum Beispiel der Basis-Benziner der erfolgreichen Mercedes C-Klasse vor Jahren mit kaum mehr als 100 PS durch die Gegend, sind es nun rund 150 PS. (http://www.lycos.de/startseite/auto/specials/genf2004/show_pi.html?dbID=315&page=1, accessed on October 21 2007)

The decompositional conceptual structure of 'krebsen' on abstraction level III (*basic eventity III, causeless motion*) is as follows:
### CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th>Grammatical Relation: Subject</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventory III:</em> exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the <em>manner</em>-component on abstraction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical Relation: Predicate</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventory III:</em> modified <em>manner</em>-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
<td></td>
</tr>
</tbody>
</table>

#### 7.3.4.2.4 abstraction level IV: metaphorical concepts

Metaphorical concepts involve the idea that an exponent’s attempts to achieve something are conceptualized in terms of a slow and laborious path motion.

**Abstract basic eventity: (causeless abstract motion)**

Da hatte Valencia in der spanischen Liga gerade ein Pünktchen auf dem Konto aus drei Spielen, *krebste* am Ende der Tabelle herum. (IDS-Korporus)

Die ÖVP krebst in Umfragen ungefähr beim Ergebnis des Vorjahres herum. (IDS-Korpus)

Derzeit krebsen beide am Existenzminimum herum - demütigend für zwei ehrgeizige Teams und deren Spielmacher! (IDS-Korpus)


Als literarischer Marionettenspieler, als Meister von Rollenprosa, der seine Figuren fest im Griff hat, lässt er seine literarischen Figuren sich im Kreise drehen; sie alle krebsten herum, sie verlieren sich in Stadtlandschaften, an deren Rändern, bildlich gesprochen, immer der Ruin oder eine Ruine steht. (IDS-Korpus)

Die Innovation lahmt, das Wachstum krebst, Vollbeschäftigung wird zum Traum, und die Staatschulden steigen. (IDS-Korpus)

Sie hat nicht nur mit internen Problemen zu kämpfen, sondern ist in einem Markt (Spinnereimaschinen) tätig, der krebst. (IDS-Korpus)

Bau krebst weiter: Die höheren Kurzfristzinsen wirken sich bei den Bauinvestitionen vor allem im Bereich des Wohnungsbaus aus. (IDS-Korpus)

Hotellerie krebst weiter: Die Zahl der Übernachtungen in Schweizer Hotels ist im Juli auf den tiefsten Stand seit 42 Jahren gefallen. (IDS-Korpus)

Es krebsen alle Parteien. (IDS-Korpus)

„Frauenprojekte krebsen und kranken im ganzen Land“, denn der Staat zieht sich aus deren Finanzierung immer mehr zurück. (IDS-Korpus)

Wenig später zeigt sich, dass der Schweizer Fussball generell krebst. (IDS-Korpus)

Ewig lang schon krebste ich mit meinem Übergewicht durchs Leben, das wir ja nicht schlimm, wenn ich nicht so darunter gelitten hätte.

(http://www.amazon.de/Abnehmen-mit-tinto-Eva-Schumann/dp/customer-reviews/3831118973, accessed on October 21 2007)
The decompositional conceptual structure of 'krebsen' on abstraction level IV (abstract basic eventity, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>eventity IV</strong>: concrete or abstract exponent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>eventity IV</strong>: fictive motion event which is motivated by Modification I of the hyperbole concepts</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

### 7.3.5 Nominal concept 'Hecht', verbal concept 'hechten'

**eventity I and basic eventity I**: The polysemous lexeme 'Hecht' is of interest here in its reading (zu den Knochenfischen gehörender) räuberisch lebender Fisch mit langgestrecktem, auf dem Rücken dunkel olivgrün bis graugrün, auf der Bauchseite weißlich gefärbtem Körper, schnabelartig abgeflachtem Maul und starken Zähnen (Duden, 1989); The concept to move as the exponent denoted by the noun base is not lexicalized; it is explicated in 7.3.5.1.. There is noncircular definition between *eventity I* and *basic eventity I*.

**Ontology**: Within the ontological framework used here, the entity denoted by the lexeme 'Hecht' can be classified as *eventity*, more exactly as *absolute individual*; and the entity denoted by the lexeme 'hechten' as *eventity*, more exactly as *activity*.

**Word Formation**: noun base: 'Hecht'; conversion; verbal suffix -en; simulative

#### 7.3.5.1 The explication of the manner-component of the 'hechten'-eventity

The manner-component of the 'hechten'-eventity can be explicated as follows: the exponent 'Hecht' leaps out of the water arcing into a headlong dive.
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7.3.5.2 The decompositional conceptual structure of the 'hechten'-eventivity on four levels of abstraction

7.3.5.2.1 abstraction level I: to move as the exponent  The concept on abstraction level I is not lexicalized and ad hoc uses were not found.

7.3.5.2.2 abstraction II: to move like the exponent  There are no lexicalized concepts on abstraction level II and ad hoc uses were not found.

7.3.5.2.3 abstraction level III: hyperbole concepts  There are two modifications of the manner-component on abstraction level III.

Modification I: Modification I involves the element that an exponent, probably mainly people, leaps from the ground arcing into a headlong dive, either into water or to the ground by cushioning the impact of the fall with their hands.

basic eventity III: (causeless motion)

Tretet in kurzweiligen Wettkämpfen gegen andere DoA-Girls an - Baggert, hechtet und blockt auf dem warmen Sandstrand.
(http://www.cgi.ebay.fr/Dead-or-Alive-Xtreme-2-XBox360-XBox-360-Sport-Spiel_W0QQitemZ280153151803QQihZ01 QcategoryZ1..., accessed on January 1 2008)

Für die kurze Ecke hechtest du dann leicht schräg nach vorn, dem Ball entgegen, was technisch korrekt wäre, aber du läst halt hier eine größere Lücke.

Er nahm Anlauf, hechtete vom seitlichen Beckenrand mit einem filmreifen Kopsprung ins Wasser und tauchte ab.

Plötzlich drängte sich die Grossmutter erstaunlich flink an mir vorbei und hechtete auf das Bett.
(http://www.caminol0.com/Kupferschlucht.htm, accessed on January 1 2008)

Er selbst hechtete ins Meer und entzog sich so dem Gewühl, indem er zum nächstliegenden Schiff schwamm.
(http://www.wdr5.de/sendungen/leonardo/manuskript/ms050711 schwimmen_5__geschichte_fertig.pdf, accessed on January 1 2008)

Er rannte geduckt vom Lager weg, nahm sein Gewehr wieder auf und hechtete ins Unterholz in der Nähe.
Modification II: Modification II involves the element that an exponent executes a sudden, forceful path motion. There are no further manner restrictions.

basic eventity III: (causeless motion)

Ich *hechtete* ins Büro und erklärte meiner Chefin ungefragt wo ich gewesen war.

Trotzdem duschte ich an jenem Tag nicht länger als drei Minuten und *hechtete* ins Zimmer zurück, wo ich Andrea schon mal vorwarnte.
(http://www.interrailers.net/cgi-bin/db_site.cgi/site_143/, accessed on January 1 2008)

Ralf muss den letzten Zug erwischen (ist ohne Auto gekommen, per Taxi, Lichtmaschine hinüber) und *hechtet* aus dem Haus.
(http://www.interfriendship.de/de/diary/kw-28-30-00.html, accessed on January 1 2008)

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory III: exponents other than the exponent denoted by the noun base</td>
<td>eventity III: modified manner-component</td>
<td>eventity I: the fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the exponent denoted by the subject is in a slightly concave arc-shaped position when executing the 'hechtent'-eventity and that the movement is forceful. The approximate values of the elements 'slightly concave arc-shaped position' and 'forceful' are adjusted to the domain in question by means of the focal adjustment selection.</td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>
Ich bin auch nicht der völlig aufgedrehte, ausgeflippte Kerl, der von einer Party zur nächsten hechtet und dabei einfach vergisst das Leben zu genießen.

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventivity III:</em> exponents other than the exponent denoted by the noun base</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventivity III:</em> modified manner-component</td>
<td><em>eventivity I:</em> the fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the exponent denoted by the subject executes path motion forcefully and that the path motion starts with a sudden outburst of energy. The approximate values of the force-dynamics element 'forceful' and 'with a sudden outburst of energy' are adjusted to the domain in question by means of the focal adjustment selection.</td>
<td></td>
</tr>
</tbody>
</table>

| valency | only exponent present | causeless, effectless |

### 7.3.5.2.4 abstraction level IV: metaphorical concepts

There are no lexicalized concepts on abstraction level IV and *ad hoc* uses were not found.

### 7.4 Social Types

#### 7.4.1 Nominal concept 'Vagabund', verbal concept 'vagabundieren'

*eventivity I and basic eventivity I:* The meaning of the lexeme 'Vagabund' is *Landstreicher, Herumtreiber (…) (liebt das unstete Leben, hält es nicht lange an einem Ort aus)* (Duden, 1989); the meaning of the
lexeme 'vagabundieren' is ohne festen Wohnsitz sein, als Vagabund, Landstreicher leben bzw. ohne festes Ziel umherziehen, umherzweifen. There is circular definition between inventity $I$ and basic eventity $I$.

Ontology: Despite the fact that the nominal and the verbal concept imply each other, the concept denoted by the noun is ontologically not hybrid. Thus, within the ontological framework used here, the entity denoted by the lexeme 'Vagabund' can be classified as inventity, more exactly as absolute individual; and the entity denoted by the lexeme 'vagabundieren' as eventity, more exactly as activity.

Word Formation: noun base: 'Vagabund'; conversion, verbal suffix -ieren; similative

7.4.1.1 The explication of the manner-component of the 'vagabundieren'-eventity

The manner-component of the 'vagabundieren'-eventity lies in the element that the exponent executes a path motion which is characterized by many changes of place, which recur with high, irregular frequency. He or she certainly mainly walks, but there are also other possibilities (e.g. that the exponent or the exponents move around in a covered wagon). There is the additional element that this activity is evaluated as unplanned and aimless.

7.4.1.2 The decompositional conceptual structure of the 'vagabundieren'-eventity on four levels of abstraction

7.4.1.2.1 abstraction level I: to move as the exponent

basic eventity $I$: (causeless motion)

Die Schauspielerin Sandrine Kiberlain beobachtet in „Zu verkaufen“ Sandrine Bonnaire, die 1985 in Agnes Vardas „Vogelfrei“ durch ein winterliches Südfrankreich vagabundierte. (Leipziger Korpus)

Wohnsitzlos vagabundierte Domenico dann 17 Jahre lang in Deutschland und Italien umher, bis er jetzt bei einer Kontrolle am Hauptbahnhof geschnappt wurde. (IDS-Korpus)
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The decompositional conceptual structure of ‘vagabundieren’ on abstraction level I (basic entity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>entity I: exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| grammatical relation: predicate | | |
| entity I: manner-component | | |

<table>
<thead>
<tr>
<th>valency</th>
<th>only exponent present</th>
<th>causeless, effectless</th>
</tr>
</thead>
</table>

7.4.1.2.2 abstraction level II: to move like the exponent Exponents which are not vagabonds but who rove around for other reasons than being homeless qualify here.

basic entity II: (causeless motion)

Viele von ihnen kaufen sich ein Wohnmobil und nutzen die verschiedenen europäischen Klimaverhältnisse aus; Im Frühjahr sind sie in Mitteleuropa, im Hochsommer vagabundieren sie durch Skandinavien und über die britischen Inseln, im Herbst und Winter touren sie durch den mediterranen Raum. (IDS-Korpus)

Als Neunjähriger verwaist, musste er die Schule früh verlassen und vagabundierte auf Arbeitssuche durch ganz Rußland. (http://www.kiroc-center.org/incl_06/incl_06_05/autoren/gorkij.html, accessed on October 21 2007)


The decompositional conceptual structure of ‘vagabundieren’ on abstraction level II (basic entity II, causeless motion) is as follows:
### 7.4.1.2.3 Abstraction level III: Hyperbole Concepts

There is one modification of the *manner*-component on abstraction level III.

**Modification I:** Modification I involves the multiple change of place of things which is caused by someone or something (e.g., certain circumstances).

**Basic Eventity III:** *(causeless motion)*

In den Akten des parlamentarischen Untersuchungsausschusses Ende der 80er Jahre über Atombördale und die Sicherheit von Kernkraftwerken sagte beispielsweise der Atom-Sachverständige Büker: „Wir müssen davon ausgehen, daß auf dem Weltmarkt Plutonium und hoch angereichertes Uran *vagabundieren.*“ (IDS-Korpus)

Das Evangelium fiel Raub und Habgier anheim, *vagabundierte* von Heidelberg aus quer durch Europas Höhe, gelangte schließlich als Fragment hinter die Vatikan-Mauern. (IDS-Korpus)

Kapital *vagabundiert* in Summen um den Globus, die vor einer Dekade noch undenkbar waren. (IDS-Korpus)

Der Chemiker kann uns erklären, warum die Moleküle bei Wärme freier durch den Raum *vagabundieren*, aber in die Nase sticht’s trotzdem. (IDS-Korpus)

Auch Grünen-Fraktionschef Manfred Fleischer glaubt nach wie vor, daß das Plutonium ursprünglich nicht frei *vagabundierte, ‘sondern von den BND-Marionetten aus Pullach bestellt wurde‘. (IDS-Korpus)

Die Gesetzesvorschläge *vagabundieren* von einem Bundestags-Ausschuß zum nächsten. (IDS-Korpus)

<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Vagabundity II:</em> exponents other than the exponent denoted by the <em>manner</em>-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Vagabundity II:</em> unmodified <em>manner</em>-component</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>
The decompositional conceptual structure of 'vagabundieren' on abstraction level III (basic eventity III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity III</em> exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity III</em>: modified manner-component</td>
<td><em>eventity I</em>: the fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the exponent denoted by the subject executes a large number of changes of place, which recur with high, irregular frequency. The nature of the changes of place and the approximate values of the elements 'a large number' and 'high, irregular frequency' are adjusted to the domain in question by means of the focal adjustment selection.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
<td></td>
</tr>
</tbody>
</table>

7.4.1.2.4 abstraction level IV: metaphorical concepts Metaphorical concepts are motivated by the manner-component since they involve the idea that an abstract entity is considered to wander around aimlessly.

abstract basic motion: (causeless abstract motion)

Der Geist hat sich mittlerweile in Rechenautomaten zurückgezogen, und die Liebeshust vagabundiert in den Fernsehkanälen. (IDS-Korpus)

Das Bewusstsein ist der eigentliche Held in dieser Prosa, das Gehirn, das arbeitet, phantasiert, träumt und vagabundiert, wird hier zum Zentrum der Welt. (IDS-Korpus)
Während in der aufgewählten Gesellschaft Mythen vagabundieren, führen die Institutionen der Macht ein Eigenleben, das es ihnen erlaubt, sich erfolgreich in Szene zu setzen und doch nicht in die Karten schauen zu lassen. (IDS-Korpus)

Die nämlich ist der akribisch genau und gleichzeitig sehr beiläufig registrierte Alltag, in dem die Erzählung mit der existentiellen Unsicherheit und Empfindlichkeit des Wachträumers vagabundiert. (IDS-Korpus)

Wenn einer der besten Kenner und intelligentesten Analytiker jener schwer faßbaren Stimmungen, die durch den Alltag des deutschen Ostens vagabundieren, solches behauptet, muß er ja recht haben. (IDS-Korpus)

Unsere Interessen vagabundieren ziellos auf dem Markt der Bilder, sie blicken mal hier, mal dort hin und wiegen sich in der eitlen Gewißheit, daß um sie geworben wird: Aufmerksamkeit heißt die Währung, in der wir zahlen sollen - Aufmerksamkeit auf eine Gegenwart, um deren Aufteilung sich viele Anbieter reißen. (IDS-Korpus)

So wird der Besucher hineingezogen in die Absurdität gleichzeitigen Geschehens, kann losgelöst ganz im Sinne der Surrealisten assozieren und vagabundieren. (IDS-Korpus)

Dieses Zubehör zeigte, daß der Musiker nicht frei im Tonraum vagabundierte, wie es Musiktheoretiker vielen mittelalterlichen Spielrechten vorwarfen.

(http://www.uni-koeln.de/phil-fak/mawi/fricke/245krickeberg.pdf, accessed on October 21 2007)


The decompositional conceptual structure of ’vagabundieren’ on abstraction level IV (abstract basic entity, causeless abstract motion) is as follows:
### 7.4.2 Nominal concept 'Pilger', verbal concept 'pilgern'

**inventory and basic inventory I:** The meaning of the lexeme 'Pilger' is jemand, der aus Frömmigkeit eine längere (Fuß-)Reise zu einer religiös besonders verehrten Stätte macht (Duden, 1989). The meaning of the lexeme 'pilgern' is (als Pilger) eine Wallfahrt machen. There is circular definition between *inventoryI* and *basic inventory I*.

**Ontology:** Despite the fact that the nominal and the verbal concept imply each other, the concept denoted by the noun is ontologically not hybrid. Thus, within the ontological framework used here, the entity denoted by the lexeme 'Pilger' can be classified as *inventory*, more exactly as *absolute individual*; and the entity denoted by the lexeme 'pilgern' as *event*, more exactly as *accomplishment*.

**Word Formation:** noun base: 'Pilger'; conversion, verbal suffix -n; similitative

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory IV: abstract exponent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| grammatical relation: predicate | inventory IV: fictive motion event which is motivated by the manner-component | inventory I: the fact that certain aspects of the manner-component are implied governs by means of *domain mapping* the interpretation that the exponent denoted by the subject aimlessly executes a large number of changes of place, which recur with high, irregular frequency. The nature of the changes of place and of the element 'aimlessly' and the approximate values of the elements 'a large number' and 'high, irregular frequency' are adjusted to the domain in question by means of the focal adjustment *selection*.

| valency | only exponent present | causeless, effectless |
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS  179

7.4.2.1 The explication of the \textit{manner}-component of the 'pilgern'-
\textit{eventity}

The \textit{manner}-component of the 'pilgern'-\textit{eventity} can be explicated as a path
motion which obligatorily leads to a goal. There are the additional evaluating
elements that the path motion is religiously motivated and the goal is a
religiously worshipped place. In the prototypical case, the manner element
that pilgrims walk holds true, but pilgrims can also use means of transport
such as buses, trains, or airplanes when they go on a pilgrimage.

7.4.2.2 The decompositional conceptual structure of the 'pilgern'-
\textit{eventity} on four levels of abstraction

7.4.2.2.1 abstraction level I: to move as the exponent

\textbf{basic eventity I: (causeless motion)}

Eine Wallfahrt nach Mekka („Hadsch“) zu unternehmen, heißt
für den gläubigen Moslem, zur Quelle seiner Religion zu pil-
gern. (IDS-Korpus)

Er \textit{pilgerte} zu Fuß viermal nach Rom und einmal nach Jerusa-
lem.
hmt, accessed on October 21 2007)

Dann \textit{pilgerte} er nach Lourdes und fing an zu beten.
(http://www.arte.tv/de/geschichte-gesellschaft/ARTE-europa/archiv/
August-2004/608706,CmC=608714.html, accessed on October 21 2007)

The decompositional conceptual structure of 'pilgern' on abstraction level I
(basic eventity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity I: exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td>eventity I: manner-component</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: obligatory adverbial phrase</td>
<td>goal</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>exponent and goal present</td>
<td>causeless effectless</td>
</tr>
</tbody>
</table>
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS 180

7.4.2.2.2 abstraction level II: to move like the exponent There are no concepts on abstraction level II, neither lexicalized concepts nor ad hoc uses, because only pilgrims qualify for the manner-component of the 'pilgern-eventity.

7.4.2.2.3 abstraction level III: hyperbole concepts There is one modification of the manner-component on abstraction level III.

Modification I: Modification I involves a path motion which obligatorily leads to a goal. The path motion is motivated by the fact that the goal is worshipped in another way than in a religious way. The verb 'pilgern' is often used in an evaluating manner, as the speaker implies that the goal is worshipped in a quasi-religious way and this is evaluated positively or negatively. The exponents involved are in all the cases people.

basic eventity III: (causeless motion)

Und dennoch pilgerten im vorigen Jahr rund 13 Millionen Deutsche in die 24 Ikea-Märkte und ließen dort jede vierte Mark, die der Konzern weltweit umsetzt. (IDS-Korpus)
Rund 62000 Fans sind am Sonntag ins Münchner Olympiastadion gepilgert, um den Auftritt von „Michael Jackson and Friends“ zu sehen. (IDS-Korpus)
Zwar sind wegen des katastrophalen Wetters weniger Leute als erwartet zum Picknick mitten auf die Autobahn gepilgert, für den Obmann des Tiroler Transitforums war die 28-stündige Blockade der Brennerautobahn dennoch ein Riesenerfolg. (IDS-Korpus)
Jeden Abend pilgern weinseelige Gruppchen zu den kleinen Tischen inmitten der 20 Wein- und Schlemmerstände, die Winzer und Weinhandler aus allen Weinregionen Deutschlands aufgebaut haben, und genießen die Live-Musik aus der Konzertmuschel und den guten Schoppen vor ihrer Nase. (IDS-Korpus)
Rund 800 Kundinnen pilgern jährlich mehrere Male in das Idyll, um sich von Stoehr einkleiden zu lassen. (IDS-Korpus)
Long Island ist Sommerzuflucht der New Yorker - zwischen Juni und August *pilgern* Hunderttausende hinaus zu ihren Feriendomizilen. (IDS-Korpus)

Dreitausend Besucher *pilgerten* in Moskau täglich zu den Bildern Kandinskys, die zumeist während der vergangenen Jahrzehnte, als der abstrakte Künstler verfemt war, in den Depots der Kultur-Institute lagerten. (IDS-Korpus)


The decompositional conceptual structure of 'pilgern' on abstraction level III *(basic entity III, causeless motion)* is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>implicit</th>
<th>explicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>implied</em> governs by means of domain mapping the interpretation that the exponent denoted by the subject worships something or somebody in a way which is so strong that it can be equated with religious worshipping. The nature and the approximate values of the element 'somebody worships somebody or something' are adjusted to the domain in question by means of the focal adjustment <em>selection.</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>implied</em> governs by means of domain mapping the interpretation that the exponent denoted by the subject worships something or somebody in a way which is so strong that it can be equated with religious worshipping. The nature and the approximate values of the element 'somebody worships somebody or something' are adjusted to the domain in question by means of the focal adjustment <em>selection.</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>implicit</th>
<th>explicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>implied</em> governs by means of domain mapping the interpretation that the exponent denoted by the subject worships something or somebody in a way which is so strong that it can be equated with religious worshipping. The nature and the approximate values of the element 'somebody worships somebody or something' are adjusted to the domain in question by means of the focal adjustment <em>selection.</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>implied</em> governs by means of domain mapping the interpretation that the exponent denoted by the subject worships something or somebody in a way which is so strong that it can be equated with religious worshipping. The nature and the approximate values of the element 'somebody worships somebody or something' are adjusted to the domain in question by means of the focal adjustment <em>selection.</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: obligatory adverbial phrase</th>
<th>implicit</th>
<th>explicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>implied</em> governs by means of domain mapping the interpretation that the exponent denoted by the obligatory adverbial phrase within eventity III is worshipped in a way which is so strong that it can be equated with the goal of a pilgrimage. The nature and the approximate values of the element 'the goal is worshipped in a quasi-religious way’ are adjusted to the domain in question by means of the focal adjustment <em>selection.</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>implied</em> governs by means of domain mapping the interpretation that the exponent denoted by the obligatory adverbial phrase within eventity III is worshipped in a way which is so strong that it can be equated with the goal of a pilgrimage. The nature and the approximate values of the element 'the goal is worshipped in a quasi-religious way’ are adjusted to the domain in question by means of the focal adjustment <em>selection.</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>implicit</th>
<th>explicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>exponent and goal present</td>
<td><em>causeless, effectless</em></td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>
7.4.2.2.4 abstraction level IV: metaphorical concepts  There are no lexicalized concepts on abstraction level IV and ad hoc uses were not found.

7.5 Formations I

7.5.1 Nominal concept 'Tropfen', verbal concept 'tropfen'

inentity I and basic eventity I: The polysemous lexeme 'Tropfen' is of interest here in its reading kleine Flüssigkeitsmenge von kugeliger oder länglich-runder Form. The meaning of the lexeme 'tropfen' is in einzelnen Tropfen herunterfallen, (seltener) an etwas herunterrollen (Duden, 1989). There is noncircular definition between inentity I and basic eventity I.

Ontology: Within the ontological framework used here, the entity denoted by the lexeme 'Tropfen' can be classified as inentity, more exactly as absolute individual; and the entity denoted by the lexeme 'tropfen' as eventity, more exactly as activity.

Word Formation: noun base: 'Tropfen'; conversion, simulative

7.5.1.1 The explication of the manner-component of the 'tropfen'-eventity

The manner-component of the 'tropfen'-eventity can be explicated as follows: the exponent 'Tropfen' falls.

The reading an etwas herunterrollen involves a hyperbole concept of 'rollen', namely the concept which has been explicated in Modification I of the hyperbole concepts of 'rollen'.

7.5.1.2 The decompositional conceptual structure of the 'tropfen'-eventity on four levels of abstraction

7.5.1.2.1 abstraction level I: to move as the exponent

basic eventity I: (causeless motion, valency frame I)
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

Es tropfte im Bad, im Kinderzimmer, auf dem Speicher.
(http://www.fisch-am-bau.de/tcp75.html, accessed on January 13 2008)

Es tropfte aus dem Öfilter. Robert besorgte zwei Dosen Motoröl, um den Wagen in die Werkstatt fahren zu können.

The decompositional conceptual structure of 'tropfen' on abstraction level I
(basic eventity I, causeless motion, valency frame I) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: predicate</td>
<td>eventity I: manner-component</td>
<td>causeless, effectless</td>
</tr>
<tr>
<td>valency</td>
<td>0</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

basic eventity I: (causeless motion, valency frame II)

Der zäheflüssige Inhalt ergoß sich auf den Wagenboden und tropfte ins Erdreich. (IDS-Korpus)

Das Tauwasser tropfte aus den Splittern um das faustgroße Loch auf den Wohnzimmerboden. (IDS-Korpus)

Unbekannten hatten in den über der Bibliothek liegenden Räumen Wasser ausrinnen lassen, das durch die Decke tropfte und mehrere Bücher und Dokumente beschädigte. (IDS-Korpus)

Wenn Fett in die Pfanne tropft, können bei der Verbrennung bedenkliche Stoffe, zum Beispiel das krebserregende Benzypren entstehen. (IDS-Korpus)

Weil Blut aus dem Paket tropfte, fiel die an die Queen adressierte Sendung auf einer Sortierstelle auf. (IDS-Korpus)

Der Saal war mit grünem Samt behangen, der Fußboden von bläulichgrünen Marmor; ein Springbrunnen in der Mitte; von smaragdgrünen, durchsichtigen Steinen tropfte helles Rosenwasser, dessen Düfte das Gemach durchzogen. (Leipziger Korpus)

The decompositional conceptual structure of 'tropfen' on abstraction level I
(basic eventity I, causeless motion, valency frame II) is as follows:
### CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory I: exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>event I: manner-component</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>only exponent present</th>
<th>causeless, effectless</th>
</tr>
</thead>
</table>

**basic event I: (causeless motion, interpreted metonymically)**

Das Rohr tropft und tropft, und der Installateur kommt auch nicht immer sofort.

Den Bildschirm wischt man am Besten mit einem feuchten Lappen ab (Merk: Wenn der Lappen tropft nennen man das nicht feucht sondern nass.
(http://www.schlegel-vinnhorst.de/HP/Reinigung.html, accessed on December 23 2007)

Ist Farbe am Lappen, muss diese abgewaschen werden, was bedeutet: Mit einem nassen Lappen (Schwamm tropft sehr) unter Druck die Decke fest abreiben.

Wichtig ist, daß der Wasserhahn nicht tropft, andernfalls werden jährlich bis zu 6000 Liter Wasser verschwendet.
(http://www.ea-nrw.de/virtuelleshaus/ea_beta08.swf, accessed on October 21 2007)

The decompositional conceptual structure of 'tropfen' on abstraction level I with the verb 'tropfen' inducing domain highlighting in the subject (basic event I, causeless motion, interpreted metonymically) is as follows:


<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>exponents which either contain or transport substances and which drip because they leak or exponents which absorb substances and drip because they are saturated (subject interpreted metonymically)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>eventity I:</th>
<th>manner-component (the verb induces domain highlighting in the subject)</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>only exponent present</th>
<th>causeless, effectless</th>
</tr>
</thead>
</table>

**basic eventity I:** *(causeless motion, interpreted metonymically)*

Also we have the machine now good year, the first can *tropfte* permanent and then brach also now the Ausgießer ab.

(has http://www.Prisvergleich.co.at/Prisvergleich/Kaffeemaschine/370749Siemens_Elektroger%E4te/TC_911_P2.html, accessed on January 14 2008)

The decompositional conceptual structure of 'tropfen' on abstraction level I with the verb 'tropfen' inducing *domain highlighting* in the subject *(basic eventity I, causeless motion)* is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>exponents which contain or transport substances and which leak or overflow so that drops roll down on the container wall, or exponents which melt (e.g. burning candles) so that drops roll down on their surface (subject interpreted metonymically)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>eventity I:</th>
<th>manner-component</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>only exponent present</th>
<th>causeless, effectless</th>
</tr>
</thead>
</table>
causativized entity I: \((caused \text{ motion}, \text{agent-causation})\)

The causativized reading admits only the concept 'to cause drops to fall'.

Ebenso trickreich, wie einfach verläuft die Herstellung der Porenschicht: Auf das zu entspiegelnde Glas tropfen die Konstanzer Physiker eine Lösung aus zwei Kunststoffen auf, die ähnlich wie Wasser und Öl unmischbar sind. (IDS-Korpus)

The decompositional conceptual structure of 'tropfen' on abstraction level I (causativized entity I, caused motion, agent-causation) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textit{entity I: manner-component}</td>
<td></td>
<td>\textit{caused motion (agent-causation), effectless}</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: object</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textit{entity I: exponent denoted by noun base}</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent and exponent present</td>
<td></td>
<td>\textit{caused motion (agent-causation), effectless}</td>
</tr>
</tbody>
</table>

7.5.1.2.2 abstraction level II: to move like the exponent There are no concepts on abstraction level II, neither lexicalized concepts nor \textit{ad hoc} uses, because only drops qualify for the manner-component of the 'tropfen'-entity.

7.5.1.2.3 abstraction level III: hyperbole concepts There are no concepts on abstraction level III, neither lexicalized concepts nor \textit{ad hoc} uses, because there is no modification of the manner-component.

7.5.1.2.4 abstraction level IV: metaphorical concepts In metaphorical concepts, abstract entities are regarded as substances whose presence is conceptualized as divided into very small portions.
abstract basic eventity: (causeless abstract motion)

Glücklicherweise tropfte eine Stimme unten wie ein Kordial- und Couragewasser ins Herz, und er legte seinen Sauspieß an, willens, das Ding tot zu stechen oder doch den Kubikinhalt zu visieren mit dem Visierstab. (Leipziger Korpus)
Aus der Wanduhr tropft die Zeit.

The decompositional conceptual structure of 'tropfen' on abstraction level IV (abstract basic eventity, causeless abstract motion) is as follows:
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS 189

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
</table>
| inventory IV: abstract exponent | inventory IV: fictive motion event which motivated by the manner-component | inventory I: the fact that a substance, namely 'water', is implied governs by means of domain mapping the interpretation of the abstract exponent in terms of a substance. The fact that a formation, namely the exponent 'Tropfen', is implied governs by means of domain mapping the interpretation that the abstract exponent is present in very small portions. The approximate values of the element 'very small portions' are adjusted to the domain in question by means of the focal adjustment selection. inventory I: the fact that the manner-component is implied governs by means of domain mapping the interpretation that the abstract exponent denoted by the subject fictively falls. The approximate values of the fictive element 'to fall', e.g. the fictive height from which small portions of the abstract exponent fall, are adjusted to the domain in question by means of the focal adjustment selection. |}

| grammatical relation: predicate | | |
|------------------------------| | |
| | | causeless, effectless |

7.5.2 Nominal concept 'Sturm', verbal concept 'stürmen'

inventory I and basic inventory I: The polysemous lexeme 'Sturm' is of interest here in its reading sehr heftiger, starker Wind, and the polysemous lexeme 'stürmen' in its reading (von Wind) mit großer Heftigkeit
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

mit Sturmstärke wehen (Duden, 1989). There is circular definition between inventory and basic eventity I.

Ontology: The entity denoted by the lexeme 'Sturm' is ontologically hybrid. It has inventory-character (in terms of a substance) as far as the mass of air is concerned, and it has eventity-character (in terms of an activity) as far as the motion aspect is concerned. The entity denoted by the lexeme 'stürmen' can be classified as eventity, more exactly as activity.

Word Formation: noun base: 'Sturm'; conversion, verbal suffix -en, umlaut; simulative

7.5.2.1 The explication of the manner-component of the 'stürmen'-eventity

The manner-component of the 'stürmen'-eventity can be explicated by the following: a strong wind blows.

7.5.2.2 The decompositional conceptual structure of the 'stürmen'-eventity on four levels of abstraction

7.5.2.2.1 abstraction level I: to move as the exponent

*basic eventity I: (causeless motion, valency frame I)*

Da ich etwas zu lesen verlangte, brachten sie mir die Chronik von Whitby, in der ich blätterte; während es draußen heftig stürmte, und der Wind gerade so unheimlich piff, als im guten Schloß zu M... (Leipziger Korpus)

Mein gewöhnliches Seeunglück erlaubte indes die Weiterreise nicht, da es so heftig stürmte, daß das Paketboot ohne Reisende abging. (Leipziger Korpus)

The decompositional conceptual structure of 'stürmen' on abstraction level I (*basic eventity I, causeless motion, valency frame I*) is as follows:
### CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: subject</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td>event I: manner-component</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>0</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

**basic event I:** *(causeless motion, valency frame II)*

Ein wütender Sturm *stürmte* über dem Land,...

Es begann zu regnen und der islandtypisch kalte Wind *stürmte*, sodass ich auf den dritten Ritt verzichte.
(http://www.reisen.ciao.de/Island_Reiserlebnisse__Test_3131080, accessed on January 13 2008)

The decompositional conceptual structure of 'stürmen' on abstraction level I *(basic event I, causeless motion, valency frame II)* is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: subject</td>
<td>inventory I: exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td>event I: manner-component</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

#### 7.5.2.2.2 abstraction level II: to move like the exponent

There are no concepts on abstraction level II, neither lexicalized concepts nor *ad hoc* uses, because only a mass of air qualifies for the manner-component of the 'stürmen'-event.

#### 7.5.2.2.3 abstraction level III: hyperbole concepts

There are two modifications of the manner-component on abstraction level III.

**Modification I:** Modification I involves an exponent's forcefully executing a path motion. The exponents are -ontologically spoken - in all the cases absolute individuals, probably mainly people and animals.
**basic eventity III:** *(causeless motion)*

Da sprang er auf, stieß die Laienschwestern, die ihn festhalten wollten, zur Seite und *stürmte* Milada in die Halle nach. *(Leipziger Korpus)*

Mit zornesrotem Angesichte und glühenden Augen *stürmte* Predbor vorwärts, er stürzte alles auf seinem Wege nieder, und war in wenigen Augenblicken bei Nacerat. *(Leipziger Korpus)*

Die Wallfahrer saßen beim Abendessen, als plötzlich das Telefon läutete und wenig später die Wirtin in den Saal der Pension *stürmte* und rief: „Der Bub hat Nico erstochen.” *(IDS-Korpus)*

Unsere Gäste sind in Panik auf die Straße *gestürmt.* *(IDS-Korpus)*

Mit dieser Pistole bewaffnet *stürmte* er aus dem Gebäude und zwang einen Autolenker, ihm sein Auto zu überlassen. *(IDS-Korpus)*

Kinder *stürmten* die Treppen hinauf und hinunter, sind ausgelassen, fröhlich und laut. *(IDS-Korpus)*

Das Tier hatte sich aus einem nähen Stall losgerissen und war plötzlich auf die Straße *gestürmt.* *(IDS-Korpus)*

The decompositional conceptual structure of 'stürmen' on abstraction level III *(basic eventity III, causeless motion)* is as follows:
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS  193

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>inventory III</strong>: exponents other than the exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>inventory I</strong>: The fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the exponent denoted by the subject executes a path motion with great force and with high speed. The approximate values of the force dynamics elements ’great force’ and ’high speed’ are adjusted to the domain in question by means of the focal adjustment selection.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th><strong>inventory III</strong>: modified manner-component</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>only exponent present</th>
<th>causeless, effectless</th>
</tr>
</thead>
</table>

**Modification II**: Modification II involves the exponent’s forceful execution of a path motion which obligatorily leads to a goal which is brought under the exponent’s control. The exponents are -ontologically spoken - in all the cases absolute individuals, probably mainly people.

**resultivized inventory III**: *(effecting motion)*

Mit dem Schlachtruf „Hände weg von der Fremdreinigung” stürmten Mittwoch etwa 100 in den Diensten der Stadt Salzburg stehende Putzfrauen das Rathaus. (IDS-Korpus)

Kurz nach dem Eintreffen Khieu Samphans, der schon am Flughafen mit “Mörder”-Rufen begrüßt worden war, wurde die den Roten Khmer zur Verfügung gestellte Residenz in Phnom Penh von einer wütenden Menschenmenge gestürmt. (IDS-Korpus)

Eine Sondereinheit stürmte die Räumlichkeiten. (IDS-Korpus)

Am vergangenen Samstag stürmten bei der Eröffnung des Freibades nicht weniger als 1500 Besucher das neue Freizeitgelände. (IDS-Korpus)
The decompositional conceptual structure of 'stürmen' on abstraction level III (resultivized entity III, effecting motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>entity III: exponents other than the exponent denoted by the noun base</td>
<td></td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic entity of Modification I.</td>
</tr>
</tbody>
</table>

| grammatical relation: predicate | | |
|--------------------------------| | |
| entity III: modified manner-component | | |
| Modification II involves the additional element that a goal is brought under control. The nature and the approximate values of the element 'a goal is brought under control' are adjusted to the domain in question by means of the focal adjustment selection. |

| grammatical relation: object | | |
|------------------------------| | |
| goal | | |

| valency | | |
|--------| | |
| exponent and goal present | | caused effecting |

7.5.2.2.4 abstraction level IV: metaphorical concepts  Metaphorical concepts are motivated by Modification II of the hyperbole concepts since they involve the idea that a concrete or abstract exponent forcefully executes a fictive path motion which leads to a goal and the goal is brought under the exponent’s control.

abstract resultivized entity: (abstract effecting motion)

Kurz nach der Veröffentlichung von „Reload“ in Großbritannien, die Tom Jones übrigens mit einem Live-Auftritt zu mitternächtlicher Stunde in einem Londoner Musikladen würzte, stürmten die ersten Auskoppelungen bereits in die Hitparaden. (IDS-Korpus)

Es ist nicht das erste Mal, daß die schwarze Anwältin eine weiße Domäne stürmt. (IDS-Korpus)

The decompositional conceptual structure of 'stürmen' on abstraction level IV (abstract resultivized entity, abstract effecting motion) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation:</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject</td>
<td><em>inventy IV</em>: concrete or abstract exponent</td>
<td>The implications concerning certain aspects of the manner-component are analogous to <em>basic eventy</em> of Modification I.</td>
</tr>
<tr>
<td>predicate</td>
<td><em>eventy IV</em>: fictive motion event which is motivated by Modification II of the hyperbole concepts. As Modification II involves the additional element that a goal is brought under control, the metaphorical uses of 'stürmen' involve the element that an abstract goal is brought under control. The nature and the approximate values of the element 'a goal is brought under control' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation:</th>
<th>affected entity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>object</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| valency              | exponent and goal present | *caused effecting* |

### 7.5.3 Nominal concept 'Wirbel', verbal concept 'wirbeln'

*inventy I* and *basic eventy I*: The polysemous lexeme 'Wirbel' is of interest here in its reading *sehr schnell um einen Mittelpunkt kreisende Bewegung von Wasser, Luft o.ä.*; and the polysemous lexeme 'wirbeln' in its reading *sich in Wirbeln bewegen* (Duden, 1989). There is circular definition between *inventy I* and *basic eventy I*.

**Ontology:** Despite the fact that the nominal and the verbal concept imply each other, the concept denoted by the noun is ontologically not hybrid. Thus, within the ontological framework used here, the entity denoted by the lexeme 'Wirbel' can be classified as *inventy*, more exactly as *absolute individual*; the entity denoted by the lexeme 'wirbeln' can be classified as *eventy*, more exactly as *activity*. (Only metaphorical uses of the noun 'Wirbel' allow sentences expressing duration).
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Word Formation: noun base: 'Wirbel'; conversion, verbal suffix -n; simulative;

7.5.3.1 The explication of the manner-component of the 'wirbeln' -entity

The manner-component of the 'wirbeln'-entity can be explicated as follows: a mass of air or water rotates quickly; this is an inner movement.

7.5.3.2 The decompositional conceptual structure of the 'wirbeln'-entity on four levels of abstraction

7.5.3.2.1 abstraction level I: to move as the exponent

basic entity I: (causeless motion)

Der Grund: Tief „Ulla“ in Nordwestfrankreich wirbelt. (IDS-Korpus)

The decompositional conceptual structure of 'wirbeln' on abstraction level I (basic entity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventity I: exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

7.5.3.2.2 abstraction level II: to move like the exponent Formations of a large number of exponents of the same kind (ontologically speaking: collections) which form a whirlpool-like formation qualify here.

basic entity II: (causeless motion)

Sommers *wirbelten* dicke Staubwolken aus der zehn Zentimeter dicken Staubschicht in die Luft. (IDS-Korpus)
Der Schmutz *wirbelte* im durchsichtigen Auffanggefäss in der Windhose herum und kam nicht wieder heraus!
(http://www.dooyoo.de/staubsaenger/4g-staubsaenger-cyking-v-c7050/832442/, accessed on December 24, 2007)

The decompositional conceptual structure of 'wirbeln' on abstraction level III (*basic entity III, causeless motion*) is as follows:
<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>eventivity III:</em> exponents other than the exponent denoted by the noun base</td>
<td><em>eventivity I:</em> The fact that a <em>substance</em>, namely 'air' or 'water' is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject is present in large numbers and in a high density. The focus is on the exponents as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment abstraction. The fact that a formation, namely a 'Wirbel', is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject is present as a whirlpool-like formation. The approximate values of the elements 'large numbers', 'high density' and 'whirlpool-like formation' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
</tr>
</tbody>
</table>

| Grammatical relation: predicate | *eventivity III:* unmodified manner-component | *eventivity I:* the fact that the manner-component is implied governs by means of domain mapping the interpretation that the formation of exponents rotates with great force and high speed. The approximate values of the force-dynamics element 'great force' and 'high speed' are adjusted to the domain in question by means of the focal adjustment *selection*. |

| Valency | Only exponent present | *causeless, effectless* |
7.5.3.2.3 abstraction level III: hyperbole concepts

There are three modifications of the manner-component on abstraction level III.

**Modification I:** Modification I involves a single exponent’s rotation and the additional execution of a path motion.

**basic eventity III:** *(causeless motion)*

Geschmeidige Körper, die im Rhythmus der Musik übers Parkett *wirbeln* wie das lateinamerikanische Tanzensemble der Tanzschule Pfeifer eindrucksvoll demonstrieren wird.

(IDS-Korpus)

Mit Temperament und Begeisterung *wirbelte* die mittlerweile 60 Jahre alte Rock-Lady in schwarzem Lackanzug über die Bühne.

(http://www.rhein-zeitung.de/it/00/07/03/magazin/index.html, accessed on December 24 2007)

The decompositional conceptual structure of 'wirbeln' on abstraction level III *(basic eventity III, causeless motion)* is as follows:
### Chapter 7. German Exponent-Shaped Motion Verbs

<table>
<thead>
<tr>
<th>Grammatical Relation: Subject</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventivity III:</em> exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the <em>manner</em>-component on abstraction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical Relation: Predicate</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventivity III:</em> modified <em>manner</em>-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only exponent present</td>
<td></td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

**causativized *inventivity III:* (caused motion, agent-causation)**

Vier Menschen, darunter ein Dreijähriger, wurden bei einem spektakulären Unfall damals wie Puppen durch die Luft *gewirbelt* und schwer verletzt. (IDS-Korpus)

Ein Augenzeuge berichtete, wie der Sturm einen kleinen Pick-up und dessen Insassen durch die Luft *wirbelte*. (IDS-Korpus)

Die Tornados *wirbelten* Mobilhäuser durch die Luft und rissen ganze Strassenzüge ein. (IDS-Korpus)

Die Gaitalerin schnappte sich gleich den Landesvater und *wirbelte* ihn am Tanzboden umher, was ihm ob der Hitze gehörig ins Schwitzen brachte. (IDS-Korpus)

The decompositional conceptual structure of 'wirbeln' on abstraction level III (causativized *inventivity III,* caused motion, agent-causation) is as follows:
### CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>relation: subject</td>
<td>agent</td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td>eventity III: modified manner-component</td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic eventity of Modification I.</td>
</tr>
<tr>
<td>object</td>
<td>eventity III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>agent and exponent present</td>
<td>caused motion (agent-causation), effectless</td>
</tr>
</tbody>
</table>

**Modification II:** Modification II involves an exponent’s quick execution of a path motion with many changes of direction. The exponent is - ontologically speaking - in all the cases an absolute individual.

**basic eventity III:** (*causeless motion*)

Mittlerweile hat auch er den Meisterbrief und wirbelt auf den Baustellen herum. (IDS-Korpus)
Da ist immer was los bei der großen Familie: Mama Trichter wirbelt im Haus herum, sie hat viel zu tun.
(http://www.theatertuete.de/Vorstellungen/vorstellungen.html, accessed on December 23 2007)

The decompositional conceptual structure of 'wirbeln' on abstraction level III (*basic eventity III, causeless motion*) is as follows:
**CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS**

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>entity III</strong>: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>entity III</strong>: modified manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td><strong>causeless, effectless</strong></td>
</tr>
</tbody>
</table>

**causativized entity III**: *(caused motion, agent-causation)*

Die Bahn flitzt mit bis zu 60 km/h aus 18 Metern Höhe in die Tiefe und *wirbelt* die Besucher durch abenteuerliche Haarnadelkurven. (IDS-Korpus)

The decompositional conceptual structure of 'wirbeln' on abstraction level III *(causativized entity III, caused motion, agent-causation)* is as follows:


<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity III</em>: modified manner-component</td>
<td></td>
<td>The implication concerning certain aspects of the manner-component are analogous to <em>basic eventity</em> of Modification I.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: object</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity III</em>: exponents other than exponent denoted by noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent and exponent present</td>
<td>caiced motion (agent-causation), effectless</td>
<td></td>
</tr>
</tbody>
</table>

**Modification III:** Modification III involves the moving around of a large number of exponents of the same kind (ontologically speaking: a collection) all over the place.

**basic eventity III:** (causeless motion)

Kleine Schneeflocken *wirbeln* über die Bühne: Musik und Tanz gab es beim großen (und doppelten) Weihnachtskonzert des Polizeichors. (IDS-Korpus)

Die bunten Bälle *wirbeln* nur so durch die Luft, leicht und mühe los. (IDS-Korpus)

Federn *wirbelten* aus den Kissen, die Bibliothek. des Prinzen flog als Wolke ver Kohlender Papierfetzen weit in den Himmel hinauf.


The decompositional conceptual structure of 'wirbeln' on abstraction level III (**basic eventity III, causeless motion**) is as follows:
<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td><strong>inventory III</strong>: exponents other than the exponent denoted by the noun base and - partly - other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
</tr>
<tr>
<td>relation: subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td><strong>eventity III</strong>: modified manner-component</td>
<td><strong>inventory I</strong>: the fact that a substance, namely 'air' or 'water', is implied governs by means of domain mapping the interpretation that the exponents denoted by the subject are present in large numbers and in a high density, and the focus is on the formation of exponents as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment abstraction. The approximate values of the elements 'large numbers' and 'high density' are adjusted to the domain in question by means of the focal adjustment selection. <strong>eventity I</strong>: the fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the exponents denoted by the subject move with great force and high speed. The approximate values of the force-dynamics elements 'great force' and 'high speed' are adjusted to the domain in question by means of the focal adjustment selection.</td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

**causativized eventity III**: (caused motion, agent-causation)
Während die einen nun die rosa Spitzenschühchen überziehen, wirbeln die anderen Keulen durch die Luft oder laufen eine Treppe auf den Händen herunter. (IDS-Korpus)
Auf- und Abwinde wirbeln Wassertropfen in Höhen, in denen Temperaturen bis minus sechzig Grad herrschen. (IDS-Korpus)
Die zehn Mädchen wirbelten ihre Stäbe durch die Luft, dass einem fast schwindlig wurde. (IDS-Korpus)

The decompositional conceptual structure of 'wirbeln' on abstraction level III (causativized eventity III, caused motion, agent-causation) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
<th>grammatical relation: object</th>
<th>valency</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent</td>
<td><em>eventity III</em>: modified manner-component</td>
<td><em>eventity III</em>: exponents other than exponent denoted by the noun base and - partly - other than the exponents which qualify for the manner-component on abstraction level II</td>
<td>agent and exponent present</td>
</tr>
</tbody>
</table>

The implications concerning *eventity I* and *eventity I* are analogous to basic eventity of Modification III.

*resultivized eventity III*: (effecting motion)

Trotzdem wirbelt der Föhn Laub von den Bäumen und brach Äste ab. (IDS-Korpus)

The decompositional conceptual structure of 'wirbeln' on abstraction level III (*resultivized eventity III, effecting motion*) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: predicate</td>
<td>event III: modified manner-component</td>
<td>The implications concerning event I and event II are analogous to basic event III of Modification III.</td>
</tr>
<tr>
<td>grammatical relation: object</td>
<td>event III: exponents other than exponent denoted by the noun base and - partly - other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: obligatory adverbial phrase</td>
<td>goal</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>agent and exponent present</td>
<td>caused effecting</td>
</tr>
</tbody>
</table>

7.5.3.2.4 abstraction level IV: metaphorical concepts First, there are metaphorical concepts which are motivated by the manner-component since an abstract entity is conceptualized as a substance, which fictively forms a whirlpool.

abstract basic motion: (causeless abstract motion)

Eine dumpfe tierische Angst wirlbelte in ihm auf: er hatte die ganze Zeit nicht ein Wort geschrieben. ([http://www.gutenberg.spiegel.de/?id=12&xid=2100&kapitel=3&cHash=900244e298, accessed on December 24 2007](http://www.gutenberg.spiegel.de/?id=12&xid=2100&kapitel=3&cHash=900244e298, accessed on December 24 2007)]


The decompositional conceptual structure of 'wirbeln' on abstraction level IV (abstract basic eventivity, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation:</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
</table>
| subject               | *eventivity IV*: abstract exponent | *eventivity I*: the fact that a *substance*, namely 'air' or 'water', is implied governs by means of *domain mapping* the interpretation of the exponent denoted by the subject in terms of a *substance*. The fact that a formation, namely a 'Wirbel', is implied governs by means of *domain mapping* the interpretation that the exponent denoted by the subject fictively constitutes a whirlpool-like formation. The approximate values of the element 'whirlpool-like formation' are by means of the focal adjustment *selection*.
| predicate             | *eventivity IV*: fictive motion event which is motivated by the *manner*-component | *eventivity I*: the fact that the *manner*-component is implied governs by means of *domain mapping* the interpretation that the exponent denoted by the subject fictively moves in an eddying fashion with great force and high speed. The approximate values of the force-dynamics elements 'great force' and 'high speed' are adjusted to the domain in question by means of the focal adjustment *selection*.

| valency               | only exponent present | *causeless, effectless* |
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Second, there are metaphorical concepts which are motivated by the concept on abstraction level II and/or by Modification I of the hyperbole concepts since a large number of abstract entities of the same kind is considered to form a whirlpool and to move around all over the place, respectively.

abstract basic motion: (causeless abstract motion)

Einschlafen kann ich trotzdem nicht schneller, die Gedanken *wirbeln* in meinem Kopf.
(http://www.depression-diskussion.de/viewtopic.php?&p=13382, accessed on December 23 2007)

Die Worte *wirbeln* durch meinen Kopf, doch das einzige was ich sage, hört sich dann auch noch ziemlich lächerlich an.
(http://www.forum.dragonballz.de/showthread.php?s=&threadid=42573, accessed on December 23 2007)

(http://www.jetzt.sueddeutsche.de/texte/anzeigen/116917, accessed on December 23 2007)

The decompositional conceptual structure of 'wirbeln' on abstraction level IV (abstract basic event, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation:</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject</td>
<td><em>inentity IV</em>: abstract exponent</td>
<td>The implications concerning <em>inentity I</em> and <em>inentity I</em> are analogous to <em>basic event II</em> and to <em>basic event III</em> of Modification III respectively.</td>
</tr>
<tr>
<td>predicate</td>
<td><em>eventy IV</em>: fictive motion event which is motivated by the concept on abstraction level II and/or Modification III of the hyperbole concepts</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only abstract exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

Third, there are metaphorical concepts which are motivated by Modification I and/or II of the hyperbole concepts. They involve a single exponent's fictively rotating and additionally executing a path motion and moving all over the place, respectively.

abstract basic motion: (causeless abstract motion)
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Wie sie sich wieder besann, daß sie in einem schönen großen Tempel, eine erhabene Harmonie füllte das hohe Gebäude, der letzte Ton wirbelte durch das Gewölbe, an die schlanken Säulen hinauf.

(http://www.zeno.org/Literatur/M/Huber,+Therese/Erzählungen/Der+Traum+des+Lebens, accessed on December 24 2007)

Der Klang wirbelte im Luftstrom um die Flanken der fliegenden Maschine in Form einer Trompete, die dreimal wiederholte "tot .. tot...tot."


The decompositional conceptual structure of 'wirbeln' on abstraction level IV (abstract basic eventity, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation:</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject</td>
<td>eventity IV: abstract exponent</td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic eventity of Modification I and II respectively.</td>
</tr>
<tr>
<td>predicate</td>
<td>eventity IV: fictive motion event which is motivated by Modification I and/or II of the hyperbole concepts</td>
<td>causeless, effectless</td>
</tr>
<tr>
<td>valency</td>
<td>only abstract exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

7.5.4 Nominal concept 'Strom', verbal concept 'strömen'

*eventity I and basic eventity I:* The polysemous lexeme 'Strom' is of interest here in its reading größer, breiter (meist ins Meer mündender) Fluß; and the polysemous lexeme 'strömen' in its reading breit, gleichmäßig (aber mit großer Gewalt) dahinfließen (Duden, 1989). There is circular definition between *eventity* and *basic eventity*.

**Ontology:** Despite the fact that the nominal and the verbal concept imply each other, the concept denoted by the noun is ontologically not hybrid. Thus within the ontological framework used here, the entity denoted by the lexeme 'Strom' can be classified as *eventity*, more exactly as *substance*. (A classification as absolute individual would also be possible. The classification as *substance* is justified, however, because it is
the flowing mass of water which is of importance for the verbal concept.) The entity denoted by the lexeme 'strömen' can be classified as eventity, more exactly as activity.

**Word Formation:** noun base: 'Strom'; conversion, verbal suffix -en, umlaut; similative

### 7.5.4.1 The explication of the manner-component of the 'strömen'-eventity

The manner-component of the 'strömen'-eventity can be explicated as follows: a large amount of water, namely the water of a large river, flows with force.

### 7.5.4.2 The decompositional conceptual structure of the 'strömen'-eventity on four levels of abstraction

#### 7.5.4.2.1 abstraction level I: to move as the exponent

**basic eventity I: (causeless motion)**

Denn an der Ostseite, nah dem Mauerring, strömte ein ziemlich breiter Fluß von Norden her an dem alten Nest vorbei. (Leipziger Korpus)

The decompositional conceptual structure of 'strömen' on abstraction level I (basic eventity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity I:</em> exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>manner-component</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

#### 7.5.4.2.2 abstraction level II: to move like the exponent

Liquid exponents qualify here.
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**basic eventity II:** (causeless motion)

Die Sbirren, die unter der Führung des Großkapitäns beim ersten Aufzucken des Ereignisses an jene Stelle gieilt waren, hatten einen regungslosen Körper im Dunkel der Seitengasse gefunden, dem noch immer das Blut aus der Seite strömte.

(Leipziger Korpus)

Letzt sah ich dem Franz sein Kindchen an der Amme trinken, da musste es so schnell schlucken, es konnt nicht eifrig genug trinken, so strömte ihm die Milch zu. (Leipziger Korpus)

The decompositional conceptual structure of 'strömen' on abstraction level II (**basic eventity II, causeless motion**) is as follows:
### 7.5.4.2.3 Abstraction level III: hyperbole concepts

There is one modification of the manner-component on abstraction level III.

**Modification I:** Modification I involves the element that a formation of a large number of exponents of the same kind (ontologically speaking: a collection) execute a path motion with force.
**basic eventity III:** (causeless motion)

Mit den wachsenden Stunden des Tages *strömte* sogar schon die Bevölkerung der nächsten Dörfer und Städte, besonders trauernde Goten, forschend in die Tore Ravennas. (Leipziger Korpus)

Während sie hier beschäftigt waren, erklangen vom Mittelgrunde her Kastagnetten und Zimbeln, die großen Doppeltüren drehten sich um ihre erzschimmernden Säulenpfosten, und ein Schwarm von Sklaven in der schönen Tracht korintischer Epheben *strömte* herein. (Leipziger Korpus)

The decompositional conceptual structure of *strömen* on abstraction level III (*basic eventity III, causeless motion*) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entity III</em> exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the <em>manner</em>-component on abstraction level II</td>
<td><em>entity III</em>; the fact that a <em>substance</em>, namely 'water', is implied governs by means of <em>domain mapping</em> the interpretation that the exponents denoted by the subject are present in large numbers and in a high density, and the exponents involved are conceptualized as a whole. This conceptualization can be attributed to the focal adjustment <em>abstraction</em>, i.e. a higher level of schematicity is chosen. The fact that a formation, namely the exponent 'Strom', is implied governs by means of <em>domain mapping</em> the interpretation that the exponents denoted by the subject constitute a large total quantity and are present in a long and wide formation and in long and wide formations, respectively. The approximate values of the elements 'large numbers', 'high density', 'large total quantity' and 'long and wide formation' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td></td>
</tr>
</tbody>
</table>

| grammatical relation: predicate | *entity III*: modified *manner*-component | *entity I*: the fact that the *manner*-component is implied governs by means of *domain mapping* the interpretation that the formation of exponents denoted by the subject execute a path motion with great force. The approximate values of the force-dynamics element 'great force' are adjusted to the domain in question by means of the focal adjustment *selection*. |

| valency | only exponent present | *causeless, effectless* |
7.5.4.2.4 abstraction level IV: metaphorical concepts  Metaphori-
cal concepts are on the one hand motivated by the manner-component in
governing a conceptualization of abstract entities as liquids which can flow.

abstract basic eventity: (causeless abstract motion)

Aus seinen Augen strömte eine solche Ruhe, daß wir wie auf
dem Exerzierplatz vorgingen. (Leipziger Korpus)
Soeben bin ich vom Wagen gestiegen, und soeben habe ich
Deinen Brief gelesen; welche Wonne strömte durch alle meine
Adern, als ich die Züge Deiner Hand gewahrte. (Leipziger
Korpus)
Licht strömte aus den geöffneten Türen nach draußen und
mit dem Licht, strömte auch Orgelmusik nach draußen und
erfreute die Menschen.
(http://www.ciao.de/Das_denkwürdigste_Weihnachten_meines_Le-
bens__Test_2521399, accessed on December 24 2007)
Der Klang strömte durch das Fenster, Über dem Wasser-
graben, aufwärts;
(http://www.bucherecke.org/3136333735/ch446.html, accessed on De-
cember 24 2007)
Bei diesem Gedanken spürte ich auf einmal - wie zur Bestäti-
gung - eine Wärme, eine Kraft in mir, und eine große Freude
strömte in mein Herz.
(http://www.forum.psycgenu.de/showthread.php?t=115, accessed on De-
cember 24 2007)

The decompositional conceptual structure of 'strömen' on abstraction level
IV (abstract basic eventity, causeless abstract motion) is as follows:
### CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory IV: abstract exponent</td>
<td>inventory I: the fact that a substance, namely 'water', is implied governs by means of domain mapping the interpretation of the abstract exponent in terms of a substance. The fact that a formation, namely the exponent 'Strom', is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject constitutes a large total quantity. The approximate value of the element 'large total quantity' is adjusted to the domain in question by means of the focal adjustment selection.</td>
<td>event IV: fictive motion event which is motivated by the manner-component</td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>only exponent present</th>
<th>causeless, effectless</th>
</tr>
</thead>
</table>

On the other hand, metaphorical concepts are motivated by Modification I of the hyperbole concepts since a large number of abstract exponents of the same kind (ontologically speaking: a collection) are considered to execute a fictive path motion.

**abstract basic eventity:** *(causeless abstract motion)*

Alles, was Entzückung und schmachtende Sehnsucht Zärtliches
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS 217

eingeben kann, *strömte* von meinen Lippen. (Leipziger Kor-

pus)

Die Worte *strömten* durch sein Bewusstsein, ohne sich festzuset-

zen. Er schaute auf die Uhr; es war gleich halb zehn.

(http://www.schwedenkrimi.de/mankell_leseprobe.htm, accessed on De-

cember 24 2007)

Widersprüchliche Gedanken und Gefühle *strömten* durch seinen

Körper, aber er schwiegen. Schießen und mussten die Elfen und

seine Gefährten, ihren runden Bäuchen.


The decompositional conceptual structure of 'strömen' on abstraction level

IV (abstract basic event, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation:</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventy IV</em>: abstract exponent</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>eventy IV</em>: fictive motion event which is motivated by Modification I of the hyperbole concepts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The implications concerning <em>inventy I</em> and <em>eventy I</em> are analogous to basic event of Modification I.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>only exponent present</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>causeless, effectless</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7.6 Formations II

7.6.1 Nominal concept 'Parade', verbal concept 'paradieren'

*inventy I* and *basic eventy I*: The polysemous lexeme 'Parade' is of

interest here in its reading *großer, (prunkvoller) Aufmarsch militärisch-

er Einheiten, Verbände*; and the polysemous lexeme 'paradieren' in its

reading in einer Parade auf-, vorbeimarschieren (Duden, 1989). There

is circular definition between *inventy* and *basic eventy*.

Ontology: Within the ontological framework used here, the entity denoted

by the lexeme 'Parade' is ontologically hybrid. It has *inventy*-character

(in terms of a *collection*) as far as the people are involved, and it has

*eventy*-character (in terms of an *activity*) as far as the motion as-

pect is involved. The entity denoted by the lexeme 'paradieren' can be

classified as *eventy*, more exactly as *activity*. 
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Word Formation: noun base: Parade; conversion, verbal suffix -ieren; simulative

7.6.1.1 The explication of the manner-component of the 'paradieren'-entity

The manner-component of the 'paradieren'-entity involves a parade’s execution of a path motion. There are the manner elements present in that the exponents involved march and display officiality and military and political power.

7.6.1.2 The decompositional conceptual structure of the 'paradieren'-entity on four levels of abstraction

7.6.1.2.1 abstraction level I: to move as the exponent

basic entity I: (causeless motion)

Siegessparade nicht nur in Moskau: Auch in Petersburg paradierte am Morgen die Armee auf dem Schlossplatz.
(http://www.aktuell.ru/topfoto/42.html, accessed on October 21 2007)

The decompositional conceptual structure of 'paradieren' on abstraction level I (basic entity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td>entity I: exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td>entity I:</td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td>manner-component</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

7.6.1.2.2 abstraction level II: to move like the exponent  
There are no concepts on abstraction level II, neither lexicalized concepts nor ad hoc uses, because only military parades qualify for the manner-component of the 'paradieren'-entity.
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7.6.1.2.3 abstraction level III: hyperbole concepts

There are three modifications of the manner-component on abstraction level III.

Modification I: Modification I involves formations of people parading in public and official but nonmilitary scenarios.

basic eventity III: (causeless motion)

Man erwartete Besuch von fast allen umliegenden Wehren. Aus feierlichem Anlass paradierte die Wehr vor den Ehrengästen an Röhrhops Gasthaus vorbei.
(http://www.feuerwehr-marschacht.de/geschicht.htm, accessed on October 21 2007)

Der Zug setzte sich von der Uni her in Gang und paradierte durch die Altstadt zum Münsterhof.
(http://www.biwidus.ch/text/t04/0411.html, accessed on October 21 2007)

The decompositional conceptual structure of 'paradieren' on abstraction level III (basic eventity III, causeless motion) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>eventity III</strong>: exponents other than the exponent denoted by the noun base</td>
<td><strong>eventity III</strong>: modified manner-component</td>
</tr>
<tr>
<td><em>explicit</em></td>
<td><em>implicit</em></td>
</tr>
<tr>
<td><em>eventity I</em>: The fact that a <em>collection</em>, namely the usually large number of people who participate in parades, is implied governs by means of <em>domain mapping</em> the interpretation that the exponents denoted by the subject are present in relatively large numbers and in a high density. The fact that a formation, namely the exponent <em>Parade</em>, is implied governs by means of <em>domain mapping</em> the interpretation that the exponents denoted by the subject constitute a parade-like formation and the focus is on the formation as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment <em>abstraction</em>. The approximate values of the elements 'large numbers', 'high density' and 'parade-like formation' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td></td>
</tr>
<tr>
<td><em>causeless, effectless</em></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS 221

Modification II: Modification II involves the parading of formations of people in public, nonofficial, nonmilitary scenarios.

**basic eventity III:** *(causeless motion)*

Das hier ist irgendwo in den USA passiert, als ein Zirkus durch die Stadt *paradierte.*

(http://www.sagen.at/texte/gegenwart/USA/elefant_vw.html, accessed on October 21 2007)

Ein bunter Zug von Musikern, Vaganten und Feuerjongleuren *paradierte* an den akkuraten Reihenhäusern des Viertels vorbei.

(http://www.belgieninfo.net/ artikel/view/link//4fa3a04e81/article/ belgien-eing-vaterland.html, accessed on December 35 2007)

...und eines der antretenden Freizeit-Teams *paradierte* kurz vor dem Start mit Fähne und sonnenblumengeschmückten Bikes vor den Zuschauern.

(http://www.feuerwehr-hinterzarten.de/sites/presse/pr60620.htm, accessed on December 25 2007)

The decompositional conceptual structure of 'paradieren' on abstraction level III (*basic eventity III, causeless motion*) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation:</td>
<td><em>eventity III: exponents other than the exponent denoted by the noun base</em></td>
<td><em>eventity III: modified manner-component</em></td>
</tr>
<tr>
<td>subject:</td>
<td></td>
<td>The implication concerning <em>eventity I</em> and certain aspects of the manner-component are analogous to <em>basic eventity</em> of Modification I.</td>
</tr>
<tr>
<td>predicate:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

Modification III: Modification III involves the parading of groups of people or a single person in nonpublic, nonofficial, nonmilitary scenarios.

**basic eventity III:** *(causeless motion)*

Dann kam Spivack wieder ins Klassenzimmer, *paradierte* händeschüttelnd an uns vorbei, begrüßte jeden von uns...

(http://www.ltsc.ph-koeln.de/Zelter.pdf, accessed on October 21 2007)
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS 222


Breitbeinig paradierte Jon Bon Jovi im ärmellosen Muskelhemd vor 100.000 Footballfans die Bühne am New Yorker Times Square entlang,... (http://www.andriankreye.com/BonJovi.html, accessed on December 24 2007)

The decompositional conceptual structure of 'paradieren' on abstraction level III (basic entity III, causeless motion) is as follows:
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS  223

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
</table>
| *eventivity III:* exponents other than the exponent denoted by the noun base | *eventivity I:* The fact that certain aspects of the manner-component are implied governs by means of *domain mapping* the interpretation that the exponent denoted by the subject displays something and may govern the interpretation that the exponent is dressed and walks in a way which underlines the desire to display something. The nature and approximate values of the elements 'display something' and 'be dressed and walk in a way which underlines the desire to display something' are adjusted to the domain in question by means of the focal adjustment *selection*.

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th><em>eventivity III:</em> modified manner-component</th>
<th>only exponent present</th>
</tr>
</thead>
<tbody>
<tr>
<td>valency</td>
<td><em>causeless, effectless</em></td>
<td></td>
</tr>
</tbody>
</table>

7.6.1.2.4 abstraction level IV: metaphorical concepts  There are no lexicalized concepts on abstraction level IV which involve the aspect of motion and *ad hoc* uses were not found.

7.7 Rainfall, Snowfall, Hail

7.7.1 Nominal concept 'Regen', verbal concept 'regnen'

*eventivity I* and *basic eventivity I:* The meaning of the lexeme 'Regen', Niederschlag, *der in Form von Wassertropfen zur Erde fällt* is of interest here; the polysemous lexeme 'regnen' is of interest in its reading (*von Niederschlag*) als Regen zur Erde fallen. (Duden, 1989). There is circular definition between *eventivity* and *basic eventivity*. 


CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS  224

Ontology: Within the ontological framework used here, the entity denoted by the lexeme 'Regen' is ontologically hybrid. It has \textit{inventity} -character (in terms of a \textit{collection}) as far as the drops of water are concerned, and it has \textit{eventity}-character (in terms of an \textit{activity}) as far as the motion aspect is concerned. The entity denoted by the lexeme 'regnen' can be classified as \textit{eventity}, more exactly as \textit{activity}.

Word Formation: noun base: 'Regen'; conversion, verbal suffix -en, involving deletion of the schwa; simulative

7.7.1.1 The explication of the \textit{manner}-component of the 'regnen'-\textit{eventity}

The \textit{manner}-component of the 'regnen'-\textit{eventity} can be explicated by the following: rain falls. In contrast to the \textit{manner}-component of the 'hageln'-\textit{eventity} and the 'schneien'-\textit{eventity}, the \textit{manner}-component of the 'regnen'-\textit{eventity} is neutral with respect to force-dynamics. In Tālmy's terms (Tālmy, 2003:409-470), the 'regnen'-\textit{eventity}, the 'hageln'-\textit{eventity}, and the 'schneien'-\textit{eventity} are scenarios involving a stronger Agonist, namely the raindrops, the hail, and the snowflakes, which overcomes a weaker Antagonist, namely the air. In the case of 'hageln', the air resistance can be overcome more easily than in the case of 'schneien' because of the weight of hail and snowflakes. As far as 'regnen' is concerned, the qualification of exponents on abstraction level II does not depend on their weight: 'bombs' qualify as well as 'confetti'. On abstraction level II of the 'regnen'-\textit{eventity}, exponents qualify which do not qualify for abstraction level II of the 'hageln'-\textit{eventity} because they are too light, or the of 'schneien'-\textit{eventity} because they are too heavy.

7.7.1.2 The decompositional conceptual structure of the 'regnen'-\textit{eventity} on four levels of abstraction

7.7.1.2.1 abstraction level I: to move as the exponent

\textbf{basic \textit{eventity} I:} \textit{(causeless motion)}

Es regnet nämlich gar nicht. (IDS-Korpus)

The decompositional conceptual structure of 'regnen' on abstraction level I \textit{(basic \textit{eventity} I, causeless motion)} is as follows:
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS  225

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation:</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td><em>eventity I:</em> manner-component</td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>0</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

**resultivized eventity I: (effecting motion)**

Es *regnet* die Blüten vom Baum (Leipziger Korpus)

The decompositional conceptual structure of 'regnet' on abstraction level II
(*resultivized eventity I, effecting motion*) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation:</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td><em>eventity I: manner-component</em></td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td>undergoer</td>
<td></td>
</tr>
<tr>
<td>object</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td>goal:</td>
<td></td>
</tr>
<tr>
<td>obligatory adverbial phrase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>exponent and goal present</td>
<td><em>caused, effecting</em></td>
</tr>
</tbody>
</table>

**7.7.1.2.2 abstraction level II: to move like the exponent** A large number of exponents of the same kind (ontologically speaking: *collections*) which fall qualify here.

**basic eventity II: (causeless motion, valency frame I)**
Ach ja, im Eingangsbild regnet es Gold, im zweiten Akt segeln Herbstblätter herab, und beim Wiedersehens-Duett im Schlußbild, was erleben wir da? (IDS-Korpus)
Sehr zur Freude der Kinder regnete es sogar Bonbons. (IDS-Korpus)
Es regnete Konfetti, bunte Luftschlangen flogen, als Max und Moritz den Kinderfaschingsnachmittag im Trafohaus in der Keplerstraße eröffneten. (IDS-Korpus)
Da regnete es plötzlich Asche auf den zwölfjährigen Vincenzo Raia, dann regnete es auch Steine und dann regnete es kleine Felsbrocken.

The decompositional conceptual structure of 'regnen' on abstraction level II (basic eventity II, causeless motion, valency frame I) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td></td>
<td>eventity I: the fact that a collection, namely 'Regen', is implied governs by means of domain mapping the interpretation that the exponent denoted by object is present in large numbers and many small portions, respectively, and in a high density. This is also the case when the subject position is occupied by a mass term. The focus is on the exponents as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment abstraction. The approximate values of the elements 'large numbers' and 'high density' are adjusted to the domain in question by means of the focal adjustment selection. eventity I: the fact that the manner-component is implied governs by means of domain mapping the interpretation that the exponents denoted by the object fall. The approximate circumstances and values of element 'to fall', e.g. the height from which the exponents fall, are adjusted to the domain in question by means of the focal adjustment selection.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation object</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity II: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of eventity I</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>
**CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS**

**basic eventity II: (causeless motion, valency frame II)**

Bengalisches Feuer *regnet* nach dem Auftritt der “Scorpions” von der Bühne in der Hannoverschen Messehalle herab. (IDS-Korpus)

Rosenblätter *regneten* auf die Braut. (IDS-Korpus)

Die Besucher stolperten über ein Kabelwirrwarr während es von der Decke frische Farbe *regnete*.

(http://www.nittaya.de/viewtopic.php?t=13856&postorder=asc&start_ t=0&lock=1&start=18, accessed on December 25 2007)

Langsam, ganz langsam begann der Septenführer nun den Inhalt des Beutels auszuschütten und hantierte Erbsen *regneten* in die weitläufige Schlucht.


The decompositional conceptual structure of 'regnen' on abstraction level II (*basic eventity II, causeless motion, valency frame II*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity II</em>: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties being readjusted in terms of <em>eventity I</em></td>
<td><em>eventity II</em>: unmodified manner-component with the values of the manner elements being readjusted</td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventive II</em></td>
<td>The implications concerning <em>inventive I</em> and <em>eventive I</em> are analogous to <em>basic eventive II, valency frame I</em>.</td>
</tr>
</tbody>
</table>

**7.7.1.2.3 abstraction level III: hyperbole concepts** There are no concepts on abstraction level III, neither lexicalized concepts nor *ad hoc* uses, because there is no modification of the manner-component.

**7.7.1.2.4 abstraction level IV: metaphorical concepts** Metaphorical concepts involve the idea that a large number of concrete or abstract exponents of the same kind (ontologically speaking: *collections*) fictively fall.
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

abstract basic eventity: (causeless abstract motion)

Es *regnet* viel mehr Bücher, Artikel, Fernseh- und Rundfunk- 
sendungen, in denen der Weg des "raffinierten Taktikers der 
Macht" nachzeichnet und der unerlässliche Vergleich mit 
Charles de Gaulle gezogen wird, wobei ein Liberaler für 
Mitterand votiert, ein angesehener linker Autor hingegen für 
den General. (IDS-Korpus)

Nun aber *regnet* es Gewerbesteuer. (IDS-Korpus)

Es *regnete* Ratschläge, Hoffnungsparolen, Klagen ("Wir Mus-
line wollen endlich respektiert werden! Hier ist meine Vis-
itenkarte"), gefolgt von Drohungen,...
(http://www.zeit.de/2002/07/Nur_Geschmuck, accessed on December 
25 2007)

Im Gegenteilalie fanden das toll und vorbildlich und es *reg-
net* Komplimente zu meinem guten Aussehen.
on December 25 2007)

The decompositional conceptual structure of 'regnen’ on abstraction level IV
(*abstract basic eventity, causeless abstract motion*) is as follows:

<table>
<thead>
<tr>
<th>gramatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>gramatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entity IV</em>: fictive motion event which is motivated by the manner-component</td>
<td></td>
<td>The implications concerning <em>entity I</em> and <em>entity I</em> are analogous to <em>basic entity II</em>, <em>valency frame I</em>.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>gramatical relation: object</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entity IV</em>: concrete or abstract exponent</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

7.7.2 Nominal concept 'Hagel', verbal concept 'hageln'

*entity I* and *basic entity I*: The polysemous lexeme 'Hagel' is of 
interest here in its reading *Niederschlag in Form von meist erbsen-
großen, körnigen Eistückchen* (Duden, 1989), and the polysemous 
lexeme 'hageln' in its reading (*von Niederschlag) als Hagel zur Ende
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS  230

"fallen." There is circular definition between inventory I and basic event-
tity I.

Ontology: Within the ontological framework used here, the entity denoted
by the lexeme 'Hagel' is ontologically hybrid. It has inventory-character
(in terms of a collection) as far as the involved hailstones are concerned,
and it has event-entity-character (in terms of an activity) as far the motion
aspect is concerned. The entity denoted by the lexeme 'hageln' can be
classified as eventity, more exactly as activity.

Word Formation: noun base: 'Hagel'; conversion, verbal suffix -n; simulative

7.7.2.1 The explication of the manner-component of the 'hageln'-
eventity

The manner-component of the 'hageln'-eventity can be explicated as follows:
hail falls. In contrast to the manner-component of the 'regnen'-eventity,
the manner-component of the 'hageln'-eventity involves a force-dynamics
element which becomes obvious on abstraction level II, where only exponents
with a certain weight qualify (e.g. the exponents must not be too light). That
this is actually the case is illustrated by the unacceptability of the following
sentence:

*Apfelblüten hagelten auf die Straße.

7.7.2.2 The decompositional conceptual structure of the 'hageln'-
eventity on four levels of abstraction

7.7.2.2.1 abstraction level I: to move as the exponent

basic eventity I: (causeless motion)

Vor allem im Norden und Westen regnete, schneite und hagelte
es. (IDS-Korpus)

The decompositional conceptual structure of 'hageln' on abstraction level I
(basic eventity I, causeless motion) is as follows:
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>relation: subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td>eventity I: manner-component</td>
<td></td>
</tr>
<tr>
<td>relation: predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>0</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

resultivized eventity I: (effecting motion)

An example was not found.

7.7.2.2.2 abstraction level II: to move like the exponent

A large number of exponents of the same kind (ontologically speaking: collections) which have a certain weight (e.g. they must not be too light) qualify here.

basic eventity II: (causeless motion, valency frame I)

Da hagelte es plötzlich Münzen, und Geldscheine flatterten wie Schmetterlinge durch die Luft. (IDS-Korpus)
Es hat Glassplitter gehagelt. (IDS-Korpus)
1945 hagelte es schließlich Bomben der Alliierten auf die schöne Insel, nachdem sich die deutsche SS hier verschanzt hatte. (IDS-Korpus)
Die Bomben, die es nun hagelt, treffen mit Sicherheit nicht Terroristen. (IDS-Korpus)

The decompositional conceptual structure of 'hageln' on abstraction level II (basic eventity II, causeless motion, valency frame I) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>∅</td>
<td></td>
</tr>
<tr>
<td>grammatical relation predicate</td>
<td><em>eventivity II</em>: unmodified <em>manner</em>-component with the values of the manner elements being readjusted</td>
<td><em>eventivity I</em>: the fact that a <em>collection</em>, namely 'Hagel', is implied governs by means of <em>domain mapping</em> the interpretation that the exponents denoted by the object are present in large numbers and many small portions, respectively, and in a high density. This is also the case when the object position is occupied by a mass term. The focus is on the exponents as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment <em>abstraction</em>. The approximate values of the elements 'large numbers' and 'high density' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
</tr>
<tr>
<td>grammatical relation object</td>
<td><em>eventivity II</em>: exponents other than the exponent denoted by the noun base which qualify for the <em>manner</em>-component, with certain properties of the exponent being readjusted in terms of <em>eventivity I</em></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS 233

**basic eventy II:** *(causeless motion, valency frame II)*

Am 13. September 1944 hagelten Brand- und Sprengbomben aus der Luft, es war einer der schwersten Angriffe... (IDS-Korpus)
Kugeln hageln über Omaha Beach und durchschlagen die ersten Reihen von Soldaten, noch bevor sich hinter der spärlichen Deckung verkrümmen konnten.
(http://www.cho.de/Soldat_James_Ryan_Der___Test_329495, accessed on December 25 2007)
(http://www.e-focus.de/politik/ausland/kurdenkonflikt_aid_137725. html, accessed on December 25 2007)

The decompositional conceptual structure of 'hageln' on abstraction level II
*(basic eventy II, causeless motion, valency frame II)* is as follows:

<table>
<thead>
<tr>
<th>grammatical</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>relation: subject</td>
<td><em>inventy II</em>: exponents other than the exponent denoted by the noun base which qualify for the* manner-component, with certain properties of the exponent being readjusted in terms of <em>inventy I</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The implications concerning <em>inventy I</em> and <em>eventy I</em> are analogous to <em>basic eventy II, valency frame I</em>.</td>
</tr>
<tr>
<td>relation: predicate</td>
<td><em>eventy II</em>: unmodified manner-component with the values of the manner elements being readjusted</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

7.7.2.2.3 abstraction level III: hyperbole concepts There are no concepts on abstraction level III, neither lexicalized concepts nor ad hoc uses, because there is no modification of the manner-component.

7.7.2.2.4 abstraction level IV: metaphorical concepts Metaphorical concepts involve the idea that large numbers of abstract entities of the same kind (ontologically speaking: *collections*) fictively fall.

**abstract basic eventy:** *(causeless abstract motion)*
Dennoch *hagelte* es immerhin 211 Verwarnungen und 19 Anzeigen. (IDS-Korpus)

Seine Entscheidung ist jedoch verständlich, denn in den vergangenen Monaten *hagelte* es Kritik aus den eigenen Reihen, weil der hohe Metall-Tarifabschluss auf eine falsche Verhandlungsstrategie der Arbeitgeber zurückgeführt wird. (IDS-Korpus)

Ansonsten *hagelte* es Niederlagen für Palma, Drexler, Barmann, Rothenhöfer, Schmidt und Fröhlich. (IDS-Korpus)

In jüngster Vergangenheit *hagelte* es mehrere Höchststrafen von 15 Jahren Gefängnis. (IDS-Korpus)

Es *hagelte* Anzeigen und Proteste. (IDS-Korpus)

Für Virusträger und Drogensüchtige *hagelte* es Kündigungen am Arbeitsplatz. (IDS-Korpus)

Allein gegen die Bewertung der Stellen *hagelte* es Beschwerden und Einsprüche. (IDS-Korpus)

Es *hagelte* aber auch Kritik an der Gesellschaft. (IDS-Korpus)

Von allen Seiten *hagelt* es Flüche. (IDS-Korpus)

The decompositional conceptual structure of 'hageln’ on abstraction level IV
(*abstract basic eventity, causeless abstract motion*) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>\textit{event} IV: fictive motion event which is motivated by the \textit{manner}-component</td>
<td>\textit{event} I: the fact that a \textit{collection}, namely 'Hagel', is implied governs by means of \textit{domain mapping} the interpretation that the concrete or abstract exponents denoted by object is present in large numbers and many small portions, respectively, and in a high density. This is also the case when the object position is occupied by a mass term. The focus is on the exponents as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment \textit{abstraction}. The approximate values of the elements 'large numbers'and many small portions, respectively and 'high density' are adjusted to the domain in question by means of the focal adjustment \textit{selection}. The force-dynamics element of hailstones, due to their weight coming down with force, seems to governs a negative evaluation of the exponent. The nature and the approximate values of the element 'negative evaluation' are adjusted to the domain in question by means of the focal adjustment \textit{selection}.</td>
</tr>
</tbody>
</table>

| grammatical relation: predicate | \textit{event} IV: concrete or abstract exponent | \textit{causeless motion}, \textit{effectless} |
| valency                        | only exponent present |  |
7.7.3 Nominal concept 'Schnee', verbal concept 'schneien'

**inventory I and basic entity I:** The polysemous lexeme 'Schnee' is of interest here in its reading Niederschlag in Form von Schneeflocken, and the polysemous lexeme 'schneien' in its reading (von Niederschlag) als Schnee zur Erde fallen. (Duden, 1989). There is circular definition between *inventory I* and *basic entity I*.

**Ontology:** Despite the fact that the nominal and the verbal concept imply each other, the concept denoted by the noun is ontologically not hybrid. Thus, within the ontological framework used here, the entity denoted by the lexeme 'Schnee' can be classified as *inventory*, more exactly as *collection*; and the entity denoted by the lexeme 'schneien' as *entity*, more exactly as *activity*.

**Word Formation:** noun base: 'Schnee'; conversion, verbal suffix -en, involving diphthongization; similitive

### 7.7.3.1 The explication of the manner-component of the 'schneien'-*entity*

The *manner*-component of the 'schneien'-*entity* can be explicated as follows: snow falls. The 'schneien'-*entity* involves a force-dynamics element which becomes obvious on abstraction level II, where only exponents with a certain weight qualify (e.g. the exponents must not be too heavy). That this is actually the case is illustrated by the unacceptability of the following sentence:

*Erbten* schneiten auf die Bühne.

### 7.7.3.2 The decompositional conceptual structure of the 'schneien'-*entity* on four levels of abstraction

#### 7.7.3.2.1 abstraction level I : to move as the exponent

**basic entity I:** (*causeless motion*)

Es schniete den ganzen Tag.

(http://spязww.uni-muenster.de/~griesha/eps/dzu/trs/wettersatze-trs.pdf, accessedon December 25 2007)
CHAPTER 7. GERMAN EXPONENT-SHAPED MOTION VERBS

The decompositional conceptual structure of 'schneien' on abstraction level I (basic entity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>event I: manner-component</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

7.7.3.2.2 abstraction level II: to move like the exponent A large number of exponents of the same kind which have a certain weight (e.g. they must be light enough) qualify here.

**basic entity II:** (causeless motion, valency frame I)

Es ist Mittwoch morgen und wir haben mal wieder Informatik... Bardelmann erzählt und alles andere schläft. Draußen schneit es Blätter - wir haben Herbst.

Heute morgen schnete es Blüten als ich zum Bus gelaufen bin...
(http://209.35.135.104/search?q=cache:pilOEebD19IJ:www.nachtwelten.de/vB/showthread.php%3Fs%3D81a41266d3e10897c8b81b02c0bb018%26threadid%3D5461%26perpage%3D15%26pagenumber%3D9%26%22morgen+schneite+es+%C3%BCber%22&hl=de&ct=chk&cd=1&gl=de, accessed on October 21 2007)

Es schnete Konfetti. Bei knackiger Kälte zogen die Narren durch Städte und Gemeinden.
(http://www.rhein-zeitung.de/99/02/15/f/lok/00000487.html, accessed on December 25 2007)

Der Fluch ließ den Polster explodieren und es schnete Federn.

The decompositional conceptual structure of 'schneien' on abstraction level II (basic entity II, causeless motion, valency frame I) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>event II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td></td>
<td>event II: The fact that a collection, namely 'Schnee', is implied governs by means of domain mapping the interpretation that the exponent denoted by the object is present in large numbers and many small portions, respectively, and in a high density. This is also the case when the subject position is occupied by a mass term. The focus is on the exponents as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment abstraction. The approximate values of the elements 'large numbers' and 'many small portions, respectively and 'high density' are adjusted to the domain in question by means of the focal adjustment selection. event I: the fact that the manner-component is implied governs by means of domain mapping the interpretation that the exponents denoted by the object fall. The approximate circumstances and values of element 'to fall', e.g. the height from which the exponents fall, are adjusted to the domain in question by means of the focal adjustment selection.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: object</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>event II: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of event II</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>
**basic eventity II:** *(causeless motion, valency frame II)*

Blütenblätter *schneiten* auf die Straße. (Duden, 1989)

The decompositional conceptual structure of 'schneien' on abstraction level II *(basic eventity II, causeless motion, valency frame II)* is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity II:</em> exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of <em>eventity I</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
</table>
| *eventity II:* unmodified manner-component with the values of the manner elements being readjusted | | The implications concerning *eventity I* and *eventity I* are analogous to *basic eventity II, valency frame I*.

7.7.3.2.3 **abstraction level III: hyperbole concepts** There are no concepts on abstraction level III, neither lexicalized concepts nor *ad hoc* uses, because there is no modification of the manner-component.

7.7.3.2.4 **abstraction level IV: metaphorical concepts** There are no lexicalized concepts on abstraction level IV and *ad hoc* uses were not found.
Chapter 8

English Exponent-Shaped Motion Verbs

8.1 Geometrical Bodies

8.1.1 Nominal concept 'roll', verbal concept 'to roll'

inventity I and basic eventity I: The polysemous lexeme 'roll' is of interest here in its reading a cylindrical mass or a number of items arranged in a cylindrical shape, and the polysemous lexeme 'to roll' in its reading move by turning over and over on an axis (Concise Oxford English Dictionary OED, 2002). There is noncircular definition between inventity I and basic eventity I.

Etymology: The noun 'roll' in the meaning scroll, list, rolled-up mass is attested possibly before 1200 and borrowed from the Old French roule, rolle, which themselves go back to the Latin rotula, the diminutive form of rota (wheel). The verb 'to roll', in the meaning turn over and over, is perhaps borrowed from the Old French roller, which itself goes back to the Vulgar Latin rotulare, derived from the Latin rotula (Chambers Dictionary of Etymology, 1988).

Ontology: Within the ontological framework used here, the entity denoted by the noun 'roll' can be classified as inventity, more exactly as absolute individual; and the entity denoted by the lexeme 'to roll' can be classified as eventity, more exactly as activity.

Word Formation: noun base: 'roll'; conversion; simulative

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8.1.1.1 The explication of the manner-component of the ’to roll’-event

The manner-component of the ’to roll’-event can be explicated as follows: There must be a permanent contact between the exponent ’roll’ and a ground, so that there is contact solely between the surface of the cylinder wall and the ground. Further, the exponent rotates, and the friction which must be there between the exponent and the ground results in the straight, steady path motion of the exponent. Notice that activities which do not involve contact between the exponent and the ground and the path motion resulting from friction when the exponent rotates are not referred to as ’to roll’.

8.1.1.2 The decompositional conceptual structure of the ’to roll’-event on four levels of abstraction

8.1.1.2.1 abstraction level I: to move as the exponent

**basic event I: (causeless motion)**

The end of the toilet paper stayed right by my feet while the rest of the roll rolled underneath the stall door and headed on out into the main part of the bathroom at a very high rate of speed.

(http://www.empress.buzzstuff.net/archives/004728.php, accessed on October 21 2007)

The total distance that the roll rolled was measured using a wheel-stick; again, because it looked good and made others think we were hard-working scientists.

(http://www.null-hypothesis.co.uk/null-hypothesis_bestof.pdf, accessed on October 21 2007)

The decompositional conceptual structure of ’to roll’ on abstraction level I (**basic event I, causeless motion**) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>inventory I</strong>: exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td><strong>manner-component</strong></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>
**causativized entity I:** (caused motion, agent-causation)

An example was not found.

**8.1.1.2.2 abstraction level II: to move like the exponent** The same exponents which qualify for abstraction level II of the German verb ‘rollen’, i.e. exponents, which are object (ontologically spoken: absolute individuals), whose shape properties guarantee the exponent’s permanent contact with the ground when moving on by turning over and over qualify here.

**basic entity II:** (causeless motion)

He pushes the man away; the man flops onto his side, then rolls forward onto his face again, groaning. (BNC)
She rolls off the bed and stubs the fag out. (BNC)
He rolls away from Majorie, who, now lying on her back, begins to snore faintly.
I mean, why reinvent the wheel if it rolls? (BNC)
The apples had rolled everywhere, gathering bruises and fluff. (BNC)
...some of the things were not so easy to do, balls were rolling all over the place.
Except for the episode when they were in the brewery... that beer keg rolled all the way down the hall to the room he was in...
...she was trying to pile fruit on a platter and apples and strawberries and plums were rolling from the pyramid...
(http://www.gelatifarms.spaces.live.com/blog/cns!43C3CE4C50BDD04F3536.entry, accessed on December 26 2007)
The dog used so much force, the man rolled down the embankment to Bolivar Street...
(http://www.geocities.com/Heartland/Hills/1496/stoughbr.htm, accessed on December 26 2007)

The decompositional conceptual structure of ‘to roll’ on abstraction level II (basic entity II, causeless motion) is as follows
<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>event</strong> II: exponents other than the exponent denoted by the noun base which qualify for the manner-component with certain properties of the exponent being readjusted in terms of <strong>event</strong> I</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>event</strong> II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td><strong>event</strong> I: the fact that the exponent ‘roll’ is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject either has or can adopt the shape properties which guarantee permanent contact with a ground, and in some cases that the exponent is present in a certain posture, e.g. when a coin or a person executes the ‘to roll’-<strong>event</strong>. The approximate values of the elements ‘to have or to adopt the shape properties which guarantee permanent contact with a ground’ and ‘to be present in a certain posture’ are adjusted to the domain in question by means of the focal adjustment <strong>selection</strong>.</td>
<td><strong>event</strong> I: the fact that manner-component is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject is in permanent contact with a ground and rotates. The exponent executes a straight, steady path motion which is due to friction between the exponent and the ground. The nature and the approximate values of the elements ‘to be in permanent contact with a ground’, ‘to rotate’ and ‘to execute a straight, steady path motion which is due to friction between the exponent and the ground’ are adjusted to the domain in question by means of the focal adjustment <strong>selection</strong>.</td>
</tr>
</tbody>
</table>

| Valency | only exponent present | causeless, effectless |
**CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS  244**

*causativized eventity II: (caused motion, agent-causation)*

She *rolls* her fries in ketchup and nibbles at them vaguely, not like she’s starving at all. (BNC)

By the time she had *rolled* the last lump of dog food into the canal, the sun was beginning to rise... (BNC)

One of the brewers even chatted with us as he *was rolling* a keg up and down a small ramp to get all the bubbles to the top.

(http://www.ratebeer.com/Place/Country/madrid/magister-fabri-ca-de-cervezas/4556.htm, accessed on December 36 2007)

He remembered that he wasn’t allowed to pick the ball up, but he *was rolling* the ball between his little legs, and nudging it forward with his nose.

(http://www.karved.co.uk/edward2.htm, accessed on December 26 2007)

The rippling waves *rolled* the child on the beach, as if they refused to be a party in such a foul murder...

(http://www.en.wikisource.org/wiki/The_Coral_Island/Chapter_19, accessed on December 26 2007)

The decompositional conceptual structure of 'to roll' on abstraction level II (*causativized eventity II, caused motion, agent-causation*) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td>agent</td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td><em>eventity II</em>: unmodified <em>manner</em>-component with the values of the manner elements being readjusted</td>
<td>The implications concerning <em>eventity I</em> and <em>eventity II</em> are analogous to <em>basic eventity II</em>.</td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td><em>eventity II</em>: exponents other than exponent denoted by the noun base which qualify for the <em>manner</em>-component with certain properties of the exponent being readjusted in terms of <em>eventity I</em></td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>object</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>agent and exponent present</td>
<td><em>caused motion (agent-causation), effectless</em></td>
</tr>
</tbody>
</table>

Abstraction level II also covers cases in which exponents execute the 'to roll'-*eventity* because they have wheels. Since wheels are simply shortened rolls, neither any properties of the exponent nor the values of the manner elements are being readjusted.
**CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS**

**basic eventity II:** (*causeless motion, interpreted metonymically*)

A passing cart *rolled* by splattering him with mud and Corbett quietly cursed Burnell for sending him... *(BNC)*

The train *rolls* along like a drunk on beer. *(BNC)*

...of Mid Glamorgan, was trapped inside the jeep as it toppled over and kept on *rolling*. *(BNC)*

...the train made its imperceptible departure and *was rolling* along again past the uninhabited infinity of rocks and lakes and conifers... *(BNC)*

The van *was* already *rolling* along the winding lane out of sight. *(BNC)*

When they looked back they saw that tanks *were rolling* into the demonstrating crowd. *(BNC)*

The decompositional conceptual structure of 'to roll' abstraction level II with the verb inducing *domain highlighting* in the subject (*basic eventity II, causeless motion, interpreted metonymically*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject</td>
<td>exponents which can roll by means of 'wheels' (subject interpreted metonymically)</td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td><em>eventity II</em>: unmodified <em>manner</em>-component (predicate induces <em>domain highlighting</em> in the subject)</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

**causativized eventity II:** (*caused motion, agent-causation, interpreted metonymically*)

*I rolled* the car off the road, parked, and went to sleep.

Sutherland *was rolling* a cart with various bundles of clothes and ponchos.
*(http://www.theword.hunter.cuny.edu/archive/vol52/people/pmcv_2.html, accessed on December 26 2007)*

As he *was rolling* the chair into the bunker, the account co-ordinator came into the office.
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS  246

The decompositional conceptual structure of 'to roll' on abstraction level II, with the verb inducing domain highlighting in the object (causativized entity II, caused motion, agent-causation, interpreted metonymically) is as follows.

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>entity II: unmodified manner-component (predicate induces domain highlighting in the object)</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: object</th>
<th>exponents which can roll by means of 'wheels' (object interpreted metonymically)</th>
<th>caused motion (agent-causation), effectless</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>agent and exponent present</th>
<th></th>
</tr>
</thead>
</table>

8.1.1.2.3 abstraction level III: hyperbole concepts There are four modifications of the manner-component on abstraction level III.

Modification I: Among the hyperbole concepts there are exponents which are conceptualized as absolute individuals and whose liquid or semi-liquid consistency properties do not allow them to execute the 'to roll'-entity in the way established by the manner-component, namely avalanches, drops and waves. When avalanches and drops roll, there is always the exponent's permanent contact with a ground and path present. In the case of rolling waves the whole scenario is reinterpreted in terms of the manner-component of the 'to roll'-entity as follows: waves are conceptualized - ontologically spoken - as absolute individuals which move over a separate ground, namely the surface of the water, and execute a path motion. Actually, a wave is an elevation of the surface of the water which constantly reoccurs and disappears at different places.

**basic entity III:** (causeless motion)

The surf as it rolls in upon the beach; sea; wave; a billow.

(BNC)
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS


The decompositional conceptual structure of 'to roll' on abstraction level III (*basic event* III, *causeless motion*) is as follows:

<table>
<thead>
<tr>
<th>Grammatical relation</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td><em>event</em> III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the <em>manner</em>-component on abstraction level II</td>
<td></td>
</tr>
<tr>
<td>Predicate</td>
<td><em>event</em> III: modified <em>manner</em>-component</td>
<td><em>event</em> I: the fact that certain aspects of the <em>manner</em>-component are implied governs by means of <em>domain mapping</em> the interpretation that the exponent denoted by the subject executes a path motion by turning over and over. The approximate values of the element 'to turn over and over' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
</tr>
<tr>
<td>Valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

**Modification II:** Modification II involves exponents of liquid or semi-liquid consistency (ontologically speaking, *substances*) which flow or slide over a ground. The fact that water and mud can 'roll' in English (which...
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS 248

is not the case in German) may have something to do with the force-dynamics of the manner-component of the 'to roll'-eventity.

**basic eventity III: (causeless motion)**

...a flood of water gushed from the McMonnies Lake and rolled back again into the basin... (BNC)

...the surges spread out radially in all directions from the base of the rising ash column, rolling down the volcano at speeds of nearly a hundred kilometers per hour... (BNC)

As if this were not bad enough, the great mudflow rolled on into the sea at the mouth of the Riviere Blanche,... (BNC)

...is a fluorocarbon hydrophilic coating which is very effective in showers - water just rolls off. (BNC)

The decompositional conceptual structure of 'to roll' on abstraction level III (basic eventity III, causeless motion) is as follows:
**CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS**

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>entity III</strong>: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>entity III</strong>: modified manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>only exponent present</th>
<th><em>causeless, effectless</em></th>
</tr>
</thead>
</table>

**Modification III**: Modification III involves the undulating path motion of gaseous formations, e.g. fog, smoke or clouds.

**basic eventy III**: (*causeless motion*)

In the autumn, before the first snows fall, when fog *rolls* up from the valley, the hotel closes down, the people all depart. (BNC)

Huge black clouds _were rolling_ by from the south and the ghastly light that preceded the storm disappeared... (BNC)

I turned again - a dense cloud of ash _was rolling_ across the land, like a flood surging after us. Other people on the road saw the cloud, too. (http://www.books.google.com/books?isbn=0500988239..., accessed on December 26 2007)
...the whole scene can be transformed by the mist which rolls
in from the sea, shrouding the landscape in mystery. (BNC)
A huge cloud of white dust was rolling towards me and my
legs wouldn’t move.
(http://www.observer.guardian.co.uk/life/story/0,651503,00.html, ac-
gressed on December 26 2007)

The decompositional conceptual structure of ’to roll’ on abstraction level III
(basic event I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
</table>
| grammatical relation: predicate | event III: modified manner-component | event I: the fact that cer-
tain aspects of the manner-
component are implied governs
by means of domain mapping the
interpretation that the exponent
denoted by the subject executes
a path motion by turning over
and over. The approximate
values of the element ’to turn over
and over’ are adjusted to the do-
main in question by means of the
focal adjustment selection. |

Modification IV: Modification IV involves a fictive motion concept, namely
the undulating extension of land.

*basic event III: (causeless motion)*

The grounds total about 55 acres with gardens, pasture and
woodland rolling down the steep slopes to meet the waters
of the River Fowey and Woodgate... (BNC)
What I saw was principally field upon field rolling off into the far distance. (BNC) Many hills rolled over the land, the narrow channels between them bathed in shadow.

The decompositional conceptual structure of 'to roll' on abstraction level III (basic eventity III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity III: modified manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>only exponent present</th>
<th>causeless, effectless</th>
</tr>
</thead>
</table>

8.1.1.2.4 abstraction level IV: metaphorical concepts First, there are abstract concepts which are motivated by the manner-component, i.e. the concepts on the levels of abstraction I and II, insofar as abstract entities are seen as something that can be rolled away, or insofar as abstract entities are seen as something that can be turned over and over.
abstract basic eventity: (causeless abstract motion)

...and when I arrived there, the weight of my unhappiness just rolled off me like an unwanted burden. (BNC)
...it’s like a ton of anxiety rolled off my chest.

The decompositional conceptual structure of ‘to roll’ on abstraction level IV
(abstract basic eventity, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>inventity IV: abstract exponent</th>
<th>inventity I and inventity II, respectively: the fact that an exponent, which is ontologically speaking - an absolute individual, is implied, governs by means of domain mapping the interpretation of the abstract exponent denoted by the subject in terms of an absolute individual. inventity I: the fact the manner-component is implied governs by means of domain mapping the interpretation that the abstract exponent denoted by the subject executes a fictive path motion by turning over and over. The approximate values of the element ‘to turn over and over’ are adjusted to the domain in question by means of the focal adjustment selection.</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: predicate</td>
<td>inventity IV: fictive motion event which is motivated by the manner-component</td>
<td>only exponent present</td>
</tr>
</tbody>
</table>

abstract causativized eventity: (caused abstract motion, agent- causation)

He rolls the word around his mouth, as if savoring a good meal. (BNC)
Though I’ve rolled the idea around in my head repeatedly, I’m still not 100% sure that I shouldn’t have been ashamed of myself for that particular lapse. (http://www.funky16corners.blogspot.com/2006/05/howard-tate-james-gang-and-other.html, accessed on December 29 2007)
And the more I rolled the thought around in my mind, the more it appealed to me. (http://www.seahorsechronicles.blogspot.com/2007/08/free-sleep.html, accessed on December 29 2007)

The decompositional conceptual structure of ‘to roll’ on abstraction level IV (abstract causativized eventity, caused abstract motion, agent-causation) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
<th>grammatical relation: object</th>
<th>valency</th>
</tr>
</thead>
<tbody>
<tr>
<td>explicit</td>
<td>implicit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>agent</td>
<td>$eventity\ IV$: fictive motion event which is motivated by the manner-component</td>
<td>$eventity\ IV$: abstract exponent</td>
<td>agent and exponent present</td>
</tr>
<tr>
<td></td>
<td>The implications concerning $eventity\ I$ and $eventity\ II$, respectively, and $eventity\ I$ are analogous to basic $eventity\ IV$.</td>
<td></td>
<td>caused motion (agent-causation), effectless</td>
</tr>
</tbody>
</table>

Second, there are metaphorical concepts which are motivated by Modification I of the hyperbole concepts insofar as abstract entities are conceptualized as rolling waves.

**abstract basic eventity:** (causeless abstract motion)

The mood spread backward, rolling down the room like a tidal wave of hostility... (BNC)
It came to my mind while pondering the depression. It rolled in like a wave as I was leaving work last night, and it was all I could do to keep from just breaking down into tears. (http://jack42.blogspot.com/, accessed on December 17 2007)
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS  254

Waves of anxiety *rolled* in and drowned me in confusion, my small success in getting through customs falling by the wayside.
(http://www.writing.com/main/view_item/item_id/1279524/printit/1, accessed on December 19 2007)

Fear *rolled* in my tummy. My blood ran cold. I heard laughter behind...
(http://www.christinehemp.com/p-london_cops.htm, accessed on December 19 2007)

The decompositional conceptual structure of 'to roll' on abstraction level IV *(abstract basic eventity, causeless abstract motion)* is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>invenity IV</em>: abstract exponent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
</table>
| *eventity IV*: fictive motion event which is motivated by Modification I of the hyperbole concepts |          | *invenuity III*: the fact that the comparison with a 'wave' is - if not explicitly present - implied, governs by means of domain mapping the interpretation that the abstract exponent constitutes a large total quantity. The approximate values of the element 'large total quantity' are adjusted to the domain in question by means of the focal adjustment selection. *

*eventity III*: the fact that the way in which waves roll is implied governs by means of domain mapping the interpretation that the abstract exponent denoted by the subject executes a fictive path motion by turning over and over, and this is with great force and with high speed. The approximate values of the force-dynamics elements 'great force' and 'high speed' are adjusted to the domain in question by means of the focal adjustment selection. * |

<table>
<thead>
<tr>
<th>valency</th>
<th>only exponent present</th>
<th><em>causeless, effectless</em></th>
</tr>
</thead>
</table>
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS 255

Third, there are metaphorical concepts which are motivated by Modification II of the hyperbole concepts insofar as abstract entities are conceptualized as liquids, which can flow.

**abstract basic eventity: (causeless abstract motion)**

All the criticism just rolls off. (BNC)
All the strain and anxiety rolled off me. It was a beautiful feeling.
Fear rolled down my cheeks and I wanted to die.

The decompositional conceptual structure of 'to roll' on abstraction level IV
(*abstract basic eventity, causeless abstract motion*) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td>inventory IV: abstract exponent</td>
<td>inventory III: the fact that a substance of liquid consistency, probably in the most cases 'water', is implied governs by means of domain mapping the interpretation of the abstract exponent denoted by the subject in terms of a substance. eventity III: the fact that Modification II of the hyperbole concepts is implied governs by means of domain mapping the interpretation that the abstract exponent denoted by the subject fictively flows. The approximate values of the fictive element 'to flow' are adjusted to the domain in question by means of the focal adjustment selection.</td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td>eventity IV: fictive motion event which is motivated by Modification II of the hyperbole concepts</td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>
Fourth, there are metaphorical concepts which are motivated by Modification III of the hyperbole concepts insofar as abstract entities are conceptualized as gaseous substances which move in an undulating manner.

\textit{abstract basic motion: (causeless abstract motion)}

He’d use humour when my cloudy mood rolled in and my own laughter would chase the negativity away.


Have egos subsided and has a different mood rolled in?


But the next day she felt panic welling up, and in its wake depression rolled in like a fog bank.


The anxiety rolled in thick and patchy, like fog.


The decompositional conceptual structure of ‘to roll’ on abstraction level IV (\textit{abstract basic entity}, \textit{causeless abstract motion}) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>inventity IV:</strong> abstract exponent</td>
<td></td>
<td>inventity III: the fact that a substance of gaseous consistency, namely 'fog', 'clouds' or 'mist', is implied governs by means of domain mapping the interpretation of the abstract exponent denoted by the subject in terms of a substance.</td>
</tr>
<tr>
<td><strong>eventity IV:</strong> fictive motion event which is motivated by Modification III of the hyperbole concept</td>
<td></td>
<td>inventity III: the fact that Modification III of the hyperbole concepts is implied governs by means of domain mapping the interpretation that the abstract exponent denoted by the subject moves in an undulating fashion. The approximate values of the element 'in an undulating fashion' are adjusted to the domain in question by means of the focal adjustment selection.</td>
</tr>
</tbody>
</table>

| valency | only exponent present | causeless, effectless |

## 8.2 Moved Objects

### 8.2.1 Nominal concept 'seesaw', verbal concept 'to seesaw'

**inventity I and basic eventity I:** The lexeme 'seesaw' denotes a long plank balanced on a fixed support, on each end of which children sit and move up and down by pushing the ground alternately with their feet, and the polysemous lexeme 'to seesaw' is of interest in its reading move up and down on a seesaw (Concise Oxford English Dictionary OED, 2002). There is noncircular definition between inventity I and basic eventity I.

**Etymology:** Originally the lexeme 'seesaw' referred to a saw which is moved
over a piece of wood by two men. The lexeme 'seesaw' is attested with regard to rhymed verses which have the movement of the saw as their topic. The reading a long plank balanced on a fixed support, at each end of which children sit and move up and down by pushing the ground alternately with their feet is attested later and gave rise to the verbal concept move up and down on a seesaw, on the basis of which several concepts were derived. (Chambers Dictionary of Etymology, 1988)

**Ontology:** Within the ontological framework used here, the entity denoted by the lexeme 'seesaw' can be classified as *inventity*, more exactly as *absolute individual*; and the entity denoted by the lexeme 'to seesaw' can be classified as *eventity*, more exactly as *activity*.

**Word Formation:** noun base: 'seesaw'; conversion; simulative

### 8.2.1.1 The explication of the manner-component of the 'to seesaw'-eventity

The *manner*-component of the 'to seesaw'-*eventity* can be explicated as follows: two people sit on each end of the 'seesaw' and move alternatingly up and down by pushing off from the ground with their feet.

### 8.2.1.2 The decompositional conceptual structure of the 'to seesaw'-eventity on four levels of abstraction

#### 8.2.1.2.1 abstraction level I: to move as the exponent

As the 'to seesaw'-*eventity* in its most literal reading is *instrument-shaped motion* and not *exponent-shaped motion*, it holds true for abstraction level I that the seesaw is used as an instrument when it is set into motion. It is, however, the movement of the seesaw which gives rise to the concepts on the abstraction levels II and IV.

**basic eventity I:** (*causeless motion*)

Sometime in 1918 or 1919 I *was seesawing* with my sister Hallie in Annapolis, where we were living with Mother in what we called the “little yellow house”... (http://www.glencourt.com/family/mem_mimicourt.shtml, accessed on October 21 2007)
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS

The decompositional conceptual structure of ‘to seesaw’ on abstraction level I (basic eventity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td>agent</td>
<td></td>
</tr>
<tr>
<td>relation: subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td>eventity I:</td>
<td></td>
</tr>
<tr>
<td>relation: predicate</td>
<td>manner-component</td>
<td></td>
</tr>
<tr>
<td>adverbial</td>
<td>eventity I: exponent as instrument</td>
<td></td>
</tr>
<tr>
<td>phrase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>agent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

8.2.1.2.2 abstraction level II: to move like the exponent  Exponents which are long and narrow qualify here. They execute an oscillating movement around their center of gravity with the long ends alternatingly going up and down.

**basic eventity III: (causeless motion)**

After the near-disaster, he nagged his crew to wear harnesses, which tethered them to the boat and kept them from being blown away when the ship seesawed.
(http://www.findarticles.com/p/articles/mi_qn4188/is_20040627/ai_n11464127, accessed on October 21 2007)

A limp, bleeding body she recognized as the navigator Or-takin slid past her as the deck seesawed.
(http://www.simonsays.com/content/book.cfm?pid=411699&tab=1&agid=2, accessed on October 21 2007)

The decompositional conceptual structure of ‘to seesaw’ on abstraction level II (basic eventity II, causeless motion) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td>eventity II: exponents other than the exponent denoted by the noun base which qualify for the manner-component</td>
<td></td>
</tr>
<tr>
<td>relation: subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td>eventity III: unmodified manner-component</td>
<td></td>
</tr>
<tr>
<td>relation: predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>
8.2.1.2.3 abstraction level III: hyperbole concepts There are no concepts on abstraction level III, neither lexicalized concepts nor ad hoc uses, because there is no modification of the manner-component.

8.2.1.2.4 abstraction level IV: abstract concepts Metaphorical concepts involve the idea that an abstract entity fictively oscillates between two poles.

abstract basic motion: (causeless abstract motion)

Technology has always seesawed between two poles - carving the world to fit our wants one moment, and yielding to the natural order of things the next...
(http://www.uh.edu/engines/epl191.htm, accessed on October 21, 2007)

US cattle prices have seesawed this week as nervous traders awaited test results...

But Mary Karr has a brilliant sense of humor and writes so well that I seesawed between laughing and crying.

The debate seesawed back and forth for almost two hours.

The game seesawed back and forth with both sides having scoring opportunities.
(http://www.home.vinnet.net.au/~petrean/petmem93RUG.htm, accessed on October 21, 2007)

Since then, the market has seesawed cautiously higher: stocks on the Dow-Jones average ranged between 438 and 451 in January; 436 and 458 in February,...
(http://www.time.com/time/magazine/article/0,9171,868367-2,00.html, accessed on October 21, 2007)

His mind seesawed between hope and despair all through those weeks.

Catholics battled Protestants for decades, and the religious balance of power seesawed.

I was thinking along similar lines and was seesawing on whether I had the nerve to ask an intimate question.
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS

The only thing stopping me right now is $$$- I will get one. Was just seesawing about which one to buy.
She was left alone with her thoughts, which were not pleasant. Three hours later, she was seesawing between anger and fear.
From 1965 to 1973, the civil war seesawed back and forth in northern Laos, characterized by short but often very intense engagements.
(http://www.countrystudies.us/laos/34.htm, accessed on October 21 2007)
The battle seesawed back and forth in the desert as Rommel attempted to stabilize his lines along the Egyptian frontier before dealing with Tobruk in his rear.
(http://www.countrystudies.us/lybia/24.htm, accessed on October 21 2007)
The two teams seesawed back and forth with field goals leading to a decisive moment in the 4th quarter.
(http://www.boomercat.com/Pioneers/body.htm, accessed on October 21 2007)

The decompositional conceptual structure of 'to seesaw' on abstraction level IV (abstract basic eventity, causeless abstract motion) is as follows:
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS  262

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
</table>
| *inventory IV:* concrete or abstract exponent | | *entity I:* The fact that certain aspects of the *manner*-component are implied governs by means of *domain mapping* the interpretation that the amplitude of the fictive oscillating movement executed by the exponent denoted by the subject is wide (i.e. the verb implies extremes), that the frequency is high and that the changes of direction are abrupt. The approximate values of the elements 'wide amplitude', 'high frequency' and the force-dynamics element 'abrupt changes of direction' are adjusted to the domain in question by means of the focal adjustment *selection*.

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th><em>entity IV:</em> fictive motion event which is motivated by the <em>manner</em>-component</th>
<th><em>entity I:</em></th>
</tr>
</thead>
</table>

| valency | only exponent present | *causeless, effectless* |

8.2.2 Nominal concept 'shuttle', verbal concept 'to shuttle'

*inventory I* and *basic entity I:* The polysemous lexeme 'shuttle' is of interest here in its reading *a train that runs back and forth over a short distance* (Chambers Dictionary of Etymology, 1988), and the polysemous lexeme 'to shuttle' in its reading *travel regularly between two or more places* (OED, 2002). There is noncircular definition between *inventory I* and *basic entity I*.

**Etymology:** Etymology is interesting here. The lexeme 'shuttle' originally referred to *a bobbin with two pointed ends used for carrying the weft thread across between the warp threads in weaving* (Concise Oxford English Dictionary OED, 2002). This nominal concept gave rise to a verbal concept, namely *move quickly to and fro*, which is first attested in
Coverdale’s works in 1550 (Chambers Dictionary of Etymology, 1988). The nominal concept of a train, which runs back and forth over a short distance, was first attested in 1895 (Chambers Dictionary of Etymology, 1988) and was the basis for the verbal concept travel regularly between two or more places and transport in a shuttle, respectively. In 1942 the noun ‘shuttle’ was first attested to refer to planes which travel regularly between two places.

Ontology: Within the ontological framework used here, the entity denoted by the lexeme ‘shuttle’ can be classified as inventity, more exactly as absolute individual; and the entity denoted by the lexeme ‘to shuttle’ as eventity, more exactly as activity.

Word Formation: noun base: ‘shuttle’; conversion; similitive

8.2.2.1 The explicatıon of the manner-component of the ‘to shuttle’-eventity

The manner-component of the movement which is executed by a bobbin on the loom is explicatıed as follows: the bobbin quickly moves to and fro between two opposite points. As far as the derived reading train which runs back and forth over a short distance is concerned, the elements ‘relatively short distance’ and ‘relatively high frequency’ were adjusted to the domain of transport by means of the focal adjustment selection. The manner-component of the ‘to shuttle’-eventity is explicatıed in the element that a train runs back and forth relatively frequently over a relatively short distance.

8.2.2.2 The decompositional conceptual structure of the ‘to shuttle’-eventity on four levels of abstraction

8.2.2.2.1 abstraction level I: to move as the exponent

basic eventity I: (causeless motion)

As in summer 2001, when I visited Burlington, a single train (a locomotive and two coaches) shuttled back and forth once an hour...
(http://www.web.presby.edu/~jtbell/transit/Burlington/, accessed on October 21 2007)
The York Durham Heritage Railway Heritage Train shuttled between the Markham Station and the Unionville Station all
weekend.
(http://www.markhamvillage.ca/ , accessed on October 21 2007)

The decompositional conceptual structure of 'to shuttle' on abstraction level I (*basic eventity I, causeless motion*) is as follows:

<table>
<thead>
<tr>
<th>Grammatical Relation</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td><em>eventity I:</em> exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>Predicate</td>
<td><em>eventity I:</em> manner-component</td>
<td></td>
</tr>
<tr>
<td>Valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

*causativized eventity I: (caused motion, agent-causation)*

Normally, it would have taken only about three hours to travel from Chortkow to Kamionka, but the Germans had shuttled the train back and forth between many small stations and made long stops on the tracks to torture us further.
(http://www.aish.com/holocaust/overview/holocaust/holocaust_background.htm, accessed on October 21 2007)

The decompositional conceptual structure of 'to shuttle' on abstraction level I (*causativized eventity I, caused motion, agent-causation*) is as follows:

<table>
<thead>
<tr>
<th>Grammatical Relation</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>agent</td>
<td></td>
</tr>
<tr>
<td>Predicate</td>
<td><em>eventity I:</em> manner-component</td>
<td></td>
</tr>
<tr>
<td>Object</td>
<td><em>eventity I:</em> exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>Valency</td>
<td>agent and exponent present</td>
<td><em>caused motion (agent-causation), effectless</em></td>
</tr>
</tbody>
</table>
8.2.2.2.2 abstraction level II: to move like the exponent  Vehicles which have wheels qualify here.

*basic eventity II: (causeless motion)*

Cars *shuttled* back and forth between Brighton Beach and Kings Highway...
(http://www.nycsubway.org/perl/fantrips?20041023, accessed on December 2007)

Body bags were being zipped and trolleys *shuttled* back and forth. (BNC)

The decompositional conceptual structure of 'to shuttle' on abstraction level II (*basic eventity II, causeless motion*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventory II</em>: exponents other than the exponent denoted by the noun base which qualify for the manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity II</em>: unmodified manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| valency | only exponent present | causeless, effectless |

*causativized eventity II: (caused motion, agent-causation)*

For example, a welding student was recorded as being hired as a welding machine operator when he really *shuttled* cars between airports.
(http://www.5starsnews.com/computer-service/522475.htm, accessed on October 21 2007)

The decompositional conceptual structure of 'to shuttle' on abstraction level II (*causativized eventity II, caused motion, agent-causation*) is as follows:
### Chapter 8. English Exponent-Shaped Motion Verbs

<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event II: unmodified manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: object</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event II: exponents other than the exponent denoted by the noun base which qualify for the manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent and exponent present</td>
<td></td>
<td>caud motion (agent-causation), effectless</td>
</tr>
</tbody>
</table>

#### 8.2.2.2.3 abstraction level III: hyperbole concepts

There is one modification of the manner-component on abstraction level III.

**Modification I:** Modification I involves the element that an exponent executes a path motion between two or more places. There are no further manner restrictions expect for frequency restrictions. The exponent is - ontologically spoken - in all the cases an absolute individual.

**basic eventity III:** (causeless motion)

The goldfish **shuttled** to and fro beneath the flat leaves and there was an hour longer for them... (BNC)

...the animal **shuttled** from one end to the other in order to obtain food at each end.


As a child, he **shuttled** between two houses - Port Talbot and, most weekends, back to Pontrhydy... (BNC)

Ross watched as it **shuttled** between them, going from hand to hand across thirty feet of air. (BNC)

The decompositional conceptual structure of 'to shuttle' on abstraction level III (basic eventity III, causeless motion) is as follows:


<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory III: modified manner-component</td>
<td>inventory I: the fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the exponent denoted by the subject executes path motion between two or more places and that the frequency is medium to high and remains approximately the same. The approximate values of the elements 'path motion between two or more places' and 'medium to high, regular frequency' are adjusted to the domain in question by means of the focal adjustment selection</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

**causativized inventory III:** *(caused motion, agent-causation)*

He takes up a job as a pilot *shuttling* planes between a Greek island and the mainland,...(BNC)

Over the next five months, the DCF *shuttled* the children between three different foster homes up and down the Keys. (http://www.kwest.net/~kwtn/archives/News/2000/2000-03-10-KWTN-Nowatney_Kids_Suffered_No_Child_Abuse.html)

The decompositional conceptual structure of 'to shuttle' on abstraction level III *(causativized inventory III, caused motion, agent-causation)* is as follows:


<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td>agent</td>
<td>The implications concerning certain aspects of the manner-component are</td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td>analogous to basic entity of Modification I.</td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td><em>entity III: modified manner-component</em></td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td><em>entity III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</em></td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>object</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>agent and exponent present</td>
<td>caused motion (agent-causation), effectless</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2.2.2.4 abstraction level IV: metaphorical concepts Metaphorical are motivated by the manner-component and/or by the hyperbole concepts. They involve the idea that a concrete or abstract entity executes a fictive path motion between two or more places.

abstract basic motion: (causeless abstract motion)

Hunt later shuttled from series to series ("Amy Preiss", "Swiss Family Robinson", "St. Elsewhere") occasionally landing a role in a made for TV movie.

Through these associations his thoughts shuttled back and forth between England and the East,...
(http://www.books.google.com/books?isbn=0874134137..., accessed on December 29 2007)

As the crowd cheered and I joined in the applause, my mind shuttled back and forth between two perspectives.
(http://www.books.google.com/books?isbn=0415914116..., accessed on December 29 2007)
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The decompositional conceptual structure of 'to shuttle' on abstraction level IV (abstract basic eventity, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textit{inventity IV}: concrete or abstract exponent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textit{inventity IV}: fictive motion event which is motivated either by the manner-component or by the hyperbole concepts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The implications concerning certain aspects of the manner-component are analogous to the basic eventity of Modification I.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

\textit{abstract causativized motion:} (caused abstract motion, agent-causation)

An example was not found.

8.3 Animals

8.3.1 Nominal concept 'snake', verbal concept 'to snake'

\textit{inventity I and basic eventity I:} The polysemous lexeme 'snake' is of interest here in its reading \textit{predatory reptile with a long slender limbless supple body, many kinds of which have a venomous bite} (Concise Oxford English Dictionary OED, 2002), and the polysemous lexeme 'to snake' in its reading \textit{move (...) with the twisting motion of a snake}. There is noncircular definition between \textit{inventity I} and \textit{basic eventity I}.

\textbf{Ontology:} Within the ontological framework used here, the entity denoted by the lexeme 'snake' can be classified as \textit{inventity}, more exactly as \textit{absolute individual}; and the entity denoted by the lexeme 'to snake' as \textit{eventity}, more exactly as \textit{activity}.

\textbf{Word Formation:} noun base: 'snake'; conversion; similative
8.3.1.1 The explication of the manner-component of the 'to snake'-event

When the snake snakes, the S-shaped body of the snake is what is actually characteristic about the 'to snake'-event. This is, however, not a path motion but an inner motion. The snake does not move on a sinuously-shaped path. Here, path motion is, as in the case of 'to roll', due to friction. When there is no friction, the snake executes the 'to snake'-event without executing a path motion. Thus there is a causal relationship between inner motion and path motion.

8.3.1.2 The decompositional conceptual structure of the 'to snake'-event on four levels of abstraction

8.3.1.2.1 abstraction level I: to move as the exponent

**basic event I: (causeless motion)**

The subtle serpent was *snaking* his way through God's garden, seeking his own kind of prey.  
(http://www.factsandthoughts.com/genesis5.html, accessed on October 21 2007)

The decompositional conceptual structure of 'to snake' on abstraction level I (basic event I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: subject</td>
<td>event I: exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td>event I: manner-component</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

8.3.1.2.2 abstraction level II: to move like the exponent. There are no lexicalized concepts on abstraction level II and *ad hoc* uses were not found.
8.3.1.2.3 abstraction level III: hyperbole concept

There are three modifications of the manner-component on abstraction level III.

Modification I: Modification I is a case of path-shaped motion. It covers parades and convoys, which are conceptualized as something long and flexible. They move on a sinuously shaped path which conveys additionally an inner motion. There is, however, no causal relationship between path motion and inner motion. There are no further manner restrictions.

basic eventity III: (causeless motion)

A demonstration with more than a million participants was snaking its way through Shanghai, day after day, again and again.
(http://www.sturm.to/blog2/archives/date/2004/06, accessed on October 21 2007)

The motorcade was snaking its way through lunch-hour traffic in a residential quarter of West Beirut when a parked car loaded with 330 lbs. of TNT erupted.
(http://www.time.com/time/magazine/article/0,9171,957849,00.html?iid=cliix-sphere, accessed on October 21 2007)

A long freight train was snaking through the canyon.

By 3.30 next morning, a trail of headlights was snaking into the airport entrance and 500 or so members of the media jostled for space on the runway's edge.
(http://www.nature.com/nsu/040621/040621-4.html, accessed on October 21 2007)

The decompositional conceptual structure of 'to snake' on abstraction level III (basic eventity III, causeless motion) is as follows:
Modification II: Modification II is a case of path-shaped motion as it involves an exponent’s executing a sinuously-shaped path motion. There are no further manner restrictions.

\textit{Basic event III: (causeless motion)}

The car was \textit{snaking} from right to left under heavy braking. (http://www.suzuki.co.jp/jwrc/jwrc/italy/leg1.html, accessed on October 21 2007)

A \textit{searching} spot \textit{snaked} across the deck towards him. (BNC)

Several streams \textit{snaked} through grassy green areas to our left, beyond were several massive intracaldera cones. (http://www.airbornescientific.com/okmok.htm, accessed on October 21 2007)

...and made a few fast strokes in pursuit, and swam into a current of colder water that \textit{snaked} across the bay and washed around him. (BNC)

...while the lava \textit{snaked} down-slope in several glowing tongues, permanently ruining many of the best... (BNC)
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The decompositional conceptual structure of 'to snake' on abstraction level III (basic eventity III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: subject</td>
<td><em>entity III</em>: exponents other than the exponent denoted by the noun base</td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic eventity of Modification I.</td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td><em>entity III</em>: modified manner-component</td>
<td>causeless, effectless</td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td></td>
</tr>
</tbody>
</table>

**Modification III**: Modification III involves a single exponent’s execution of a sinuously shaped path motion. There are two additional elements: first, the force-dynamics element, which is present within an environment which executes an opposing force which can be overcome by the exponent; second, the evaluating element with which the exponent can overcome the opposing force executed by the environment by being clever and skillful. In Talmy’s terminology, the exponent denoted by the subject is an Agonist with an intrinsic tendency toward action. The exponent’s environment executes an opposing force by hindering the Agonist’s intrinsic tendency to move. Here, the environment executes the lesser relative force which can be overcome by the exponent, which executes the greater relative force; thus, the exponent’s tendency to move becomes realized in resultant motion. (Talmy, 2003: 409-470)

**basic eventity III**: (causeless motion)

...now the horse drawn carriage looks a little out of place among the busy traffic, *snaking* it’s way around the town’s one-way system. (BNC)

"God help me!" thought poor Clark. *Lois was snaking* her way into the audience, working the crowd. (http://www.fiction.net/stories/2003/santabab.txt, accessed on October 21 2007)

"Everyone’s here so I can’t find anyone," one guest commented as she *snaked* her way to the bar.
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS


I *snaked* my way through a maze of pipes to reach the side of the engine.


Scowling, I *snaked* my way through downtown traffic.


The decompositional conceptual structure of 'to snake' on abstraction level III (*basic eventity III, causeless motion*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entity III</em>: exponents other than the exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entity III</em>: modified manner-component; Modification III involves the additional element that the environment hinders the exponent's path motion or executes an opposing force which can be overcome by the exponent's cleverly and skillfully executing a sinuously shaped path motion. The nature of the element 'hindering environment' and the nature and the approximate values of the elements 'to overcome the hindering environment' and 'clever and skillful' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td>The implications concerning certain aspects of the manner-component are analogous to <em>basic eventity</em> of Modification I.</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

**Modification IV:** Modification IV involves the sinuous extension of something (e.g. streets, rivers, rails or queues) which is conceptualized as a fictive motion event.

**basic eventity III:** (*causeless motion*)
In London's Oxford Street a queue of early-bird shoppers snaked round Debenhams, eager to get their hands on half-price bargains. (BNC)
Several streams snaked through grassy green areas to our left, beyond were several massive intracaldera cones. (http://www.airbornescientific.com/ckmok.htm, accessed on October 21 2007)
We followed a narrow path that snaked precariously down the escarpment side. (BNC)
A rubber hose-pipe snaked across the yard from the kitchen window, bringing hot water from the tap... (BNC)
On the evening we were there we got seated pretty quick, but by the time we left the queue was snaking round and round the place. (http://www.london-eating.co.uk/3012.htm, accessed on October 21 2007)
Of course, the line for the showers was snaking out and around the building. (http://www.dailypeiphany.net/2001/may/27.htm, accessed on October 21 2007)
For some 20 kilometers, the path was snaking along beautiful Lake Temiscouata. (http://www.pages.infinet.net/mlb/Temis_e.html, accessed on October 21 2007)
A few years later, when the railroad was snaking its way across the prairies further south, this ambitious man moved to Moose Jaw where good brick clay was plentiful and business and houses were in great demand for the growing population. (http://www.wakamowheights.com/rich-inn-history.htm, accessed on October 21 2007)

The decompositional conceptual structure of 'to snake' on abstraction level III (basic entity III, causeless motion) is as follows:
8.3.1.2.4 abstraction level IV: metaphorical concepts  Metaphorical concepts are on the one hand motivated by Modification II in that an abstract entity executes a path motion following a sinuous course.

abstract basic motion: (causeless abstract motion)

Jackson’s genial, reassuring tone *snaked* out past clenched teeth. (BNC)

'That’s Just What You Are", a song from the Melrose Place soundtrack, *was snaking* rapidly up the music charts, giving Mann her first chance at a...


The decompositional conceptual structure of 'to snake' on abstraction level IV (*abstract basic eventity, causeless abstract motion*) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject</td>
<td><em>eventity IV</em>: abstract exponent</td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td><em>eventity IV</em>: fictive motion event which is motivated by Modification II of the hyperbole concepts</td>
<td>The implications concerning certain aspects of the manner-component are analogous to <em>basic eventity</em> of Modification I.</td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS  277

On the other hand, metaphorical concepts are motivated by Modification III in additionally involving a force-dynamics element. In this case, an abstract entity is considered to execute a path motion following a sinuous course in order to overcome a hindering force.

abstract basic motion: (causeless abstract motion)

He snaked his way into our lives and he took advantage of my sister. "I need some money," he whispered in her ear. 
(http://www.blog.myspace.com/postcolonialism, c

...would only complicate their situations further, and he was still reluctant to confess it was a student who had snaked her way into his heart. 

The bartender also informed me that one of the cashiers was the owner's daughter, who had snaked her way into the position and was disliked...

But it wasn't very long before she snaked her way into the marriage, and I became the 3rd wheel. 

The decompositional conceptual structure of 'to snake' on abstraction level IV (abstract basic entity, causeless abstract motion) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: predicate</td>
<td>eventy IV: fictive motion event which is motivated by Modification III of the hyperbole concepts; Since Modification III involves the additional element that the environment hinders the exponent’s path motion or executes an opposing force which can be overcome by the exponent’s clever and skillful execution of a sinuously shaped path motion, metaphorical concepts involve the idea that the exponent can overcome hindering elements by using clever tactics. The nature of the element ‘hindering elements’ and the nature and the approximate values of the elements ‘to overcome hindering elements’ and ‘clever tactics’ are adjusted to the domain in question by means of the focal adjustment, selection.</td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic eventy of Modification I.</td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

### 8.3.2 Nominal concept ’worm’, verbal concept ’to worm’

**inventy I and basic eventy I:** The polysemous lexeme ‘worm’ is of interest here in its reading as earthworm or other creeping or burrowing invertebrate animal having a long slender soft body and no limbs (Concise Oxford English Dictionary OED, 2002). The concept to move as the exponent denoted by the noun base is not lexicalized; it is explicated in 8.3.2.1. There is noncircular definition between inventy I and basic eventy I.

**Ontology:** Within the ontological framework used here, the entity denoted
by the lexeme 'worm' can be classified as *inventive*, more exactly as
*absolute individual*; and the entity denoted by the lexeme 'to worm' as
*eventive*, more exactly as *activity*.

**Word Formation:** noun base: 'worm'; conversion; simulative

8.3.2.1  The explication of the *manner*-component of the 'to worm'-
*eventive*

The *manner*-component of the 'to worm'-*eventive* can be explicated - in
terms of an anthropocentric conceptualization of the scenario - as follows: the
worm moves through the soil by wriggling and crawling and overcomes a force
which is executed by the soil. In Taliy's terminology (Taliy, 2003: 409-
470), the worm is an Agonist with an intrinsic tendency toward action. The
soil executes an external force opposing the Agonist's intrinsic tendency to
move. Here, the soil executes the lesser relative force which can be overcome
by the worm, which executes the greater relative force; thus, the worm's
tendency to move becomes realized in resultant motion.

8.3.2.2  The decompositional conceptual structure of the 'to worm'-
*eventive* on four levels of abstraction

8.3.2.2.1 abstraction level I: to move as the exponent  The concept
on abstraction level I is not lexicalized and *ad hoc* uses were not found.

8.3.2.2.2 abstraction level II: to move like the exponent  There
are no lexicalized concepts on abstraction level II and *ad hoc* uses were not
found.

8.3.2.2.3 abstraction level III: hyperbole concepts  There is one
modification of the *manner*-component on abstraction level III.

**Modification I:** Modification I involves an exponent's execution of a path
motion in an environment that hinders the exponent's motion. As the
exponent can overcome the hindering force by executing the greater
relative force, the exponent's tendency to move is realized in resultant
motion. (Taliy, 2003: 409-470). There are no further manner re-
strictions. The exponent is - ontologically spoken - in all the cases an
*absolute individual*. 
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS

**basic eventity III:** (*causeless motion*)

If spattered, the blood actually turns into thick, wriggling maggots which *worm* their way into the character's armour and clothes. (BNC)

Here in Iraq over the past week, the occupation *has wormed* its way ever deeper into Iraq's soil and into its future.
(http://www.cn-camino.org/node?page=4, accessed on October 21 2007)

Patrols from each side *wormed* into the mine fields, cautiously uncovered the buried boxes of T.N.T., neutralised them with a twist of a screw...
(http://www.time.com/time/magazine/article/0,9171,773824,00.html, accessed on October 21 2007)

In a moment Henry *was worming* his way, lying flat on the ground, through grass and prickly-pears, towards his unsuspecting victims.
(http://www.xroads.virginia.edu/~Hyper/OREGON/otrail07.html, accessed on October 21 2007)

On October 6, 1965, Michael Ulrich *wormed* into a tight cave crevice three times to extricate a trapped schoolboy.
(http://www.carnegiehero.org/resources_audio_list.php, accessed on October 21 2007)

Arriving at the opposite side of the field, I *wormed* through the hedge and into the field to see a plantation of antlers roughly 150 metres away.
(http://www.deer-uk.com/Pages/direct_approach.htm, accessed on October 21 2007)

Corkscrew thorns *wormed* into my forearms. I turned to face my doom.

Some weird fog *was worming* its way through the crowd, and they were dropping like flies. Nerve gas.
(http://www.sm.deabryn.com/Con/c1.html, accessed on October 21 2007)

I felt a homely affection for the warm security of the tent, and reluctantly *wormed* out of my bag to face the prospect of lighting the stove.

We *wormed* through rural villages, remnants of Stalin's forced collectivization, places which seem to have enjoyed few of the advantages of perestroika.
(http://www.famie.com/ice_warriors.htm, accessed on October 21 2007)

Before our jump, as I *wormed* into my jumpsuit, skullcap and goggles, I asked my tandem jumper, Nick Kaminski, questions about his ability and confidence.
The decompositional conceptual structure of 'to worm' on abstraction level III (basic event III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: predicate</td>
<td>event III: modified manner-component</td>
<td>event I: the fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the exponent denoted by the subject executes a path motion within an environment which executes an opposing force and makes the exponent's path motion laborious and slow. This opposing force can be overcome by the exponent's executing the greater relative force. The nature and approximate values of the force-dynamics elements 'opposing force' and 'greater relative force' and of the element 'laborious and slow' are adjusted to the domain in question by means of the focal adjustment selection.</td>
</tr>
</tbody>
</table>

| valency | only exponent present | causeless, effectless |

causativized event III: (caused motion, agent-causation)

I can't help but remember how he wormed money out of our brother, out of me, even out of our mother and father, when they were at the assisted-living home.

The decompositional conceptual structure of 'to worm' on abstraction level III (causativized event III, agent-causation) is as follows:
<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent</td>
<td>eventity III: modified manner-component</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic eventity of Modification I.</td>
<td></td>
</tr>
<tr>
<td>Grammatical relation: predicate</td>
<td>eventity III: exponents other than the exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td></td>
<td>caused motion, effectless</td>
<td></td>
</tr>
</tbody>
</table>

### 8.3.2.2.4 abstraction level IV: metaphorical concepts

Metaphorical concepts are analogous to the manner-component and the hyperbole concepts insofar as they involve the idea that an abstract entity executes a fictive path motion in an environment which hinders the exponent’s motion. As the abstract entity can overcome the hindering force executed by the environment, the abstract entity’s tendency to move is realized in resultant motion (Talmy, 2003: 409-470).

**Abstract basic eventity:** *(causeless abstract motion)*

Or perhaps you’ve an idea that you might *worm* your way into my affections... (BNC)

I don’t know how you all managed to *worm* your way into our confidence, but someone’s already taken care of one of your... (BNC)

There is, in short, romance all about, but what *has wormed* into Samir is love, although it takes time for him to recognize it...
(http://washingtonpost.com/wp-srv/style/books/reviews/romantics0307.htm, accessed on October 21 2007)

As quickly as I could - not very - I *wormed* out from under the shelf.
(http://www.edwardwillett.com/andychapter17.htm, accessed on October 21 2007)
...of them might well be unemployed young men pretending to be Muslims in order to worm their way into jobs that should have been occupied by the Faithful. (BNC)

They want to read between the lines, to worm their way into the subtext and assumptions behind the presented image,... (BNC)

She receives a call from company headquarters via UMTS: a virus has wormed its way into the software of her planned presentation.


For the first time, a virus has wormed its way into Microsoft’s popular MSN Messenger Service—but the slow-moving, crash-inducing pest is unlikely to cause significant damage.


The composer finally wormed out of it all by calling his next symphony A SOVIET ARTIST’S RESPONSE TO JUSTIFIED CRITICISM.

(http://www.fuguestaterepress.com/stetx.html, accessed on October 21 2007)

The religious hypocrite Tartuffe has wormed his way into the once ordered household and vulnerable heart of substantial merchant Orgon.


She tried to make me watch it a bunch of times but I constantly wormed out of it.

(http://www.joncoellito.travellerspoint.com/, accessed on October 21 2007)

Small lies that have wormed into the accepted historical take are often the most cancerous and deadly, allowing for the greatest outrages.


The decompositional conceptual structure of 'to worm' on abstraction level IV (abstract basic entity, causeless abstract motion) is as follows:
**CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS**

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory IV: concrete or abstract exponent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td>event IV: fictive motion event which is motivated by the manner-component or by Modification I of the hyperbole concepts</td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic eventity of Modification I.</td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

abstract causativized eventity: (caused abstract motion, agent-causation)

...because the lust-filled and immoral Mata Hari was worming secrets from trusting French officers and passing those secrets on to her Hun lovers.  

His youngest daughter, his favourite in the family, talked to him soothingly, comforted him, and wormed out of him the secret of the prince’s rage and sorrow...  
(http://www.darsie.net/talesofwonder/india/artist.html, accessed on October 21 2007)

Eventually, I wormed out of him that it was in fact a novel. When I asked to describe it more, he told me ‘you’ll have to read the book.’  

The decompositional conceptual structure of ‘to worm’ on abstraction level IV (abstract causativized eventity, caused abstract motion, agent-causation) is as follows:
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS 285

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td><strong>inventivity IV</strong>: concrete or abstract exponent</td>
<td>The implications concerning certain aspects of the manner-component are</td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td>analogous to <strong>basic eventity</strong> of Modification I</td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td><strong>eventity IV</strong>: fictive motion event which is motivated by Modification</td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td>I of the hyperbole concepts</td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td><strong>affected entity</strong></td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>object</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td><strong>exponent and goal present</strong></td>
<td><strong>caused motion, effectless</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.4 Formations I

8.4.1 Nominal concept ’spray’, verbal concept ’to spray’

**inventivity I and basic eventity I**: The polysemous lexeme ’spray’ is of interest here in its reading *liquid sent through the air in tiny drops* (Concise Oxford English Dictionary OED, 2002), and the polysemous lexeme ’to spray’ in its reading *(of liquid) be sent through the air in a spray* (OED). There is circular definition between inventity I and basic eventity I.

**Ontology**: Despite the fact that the nominal and the verbal concept imply each other, the concept denoted by the noun is ontologically not hybrid. Thus, within the ontological framework used here, the entity denoted by the lexeme ’spray’ can be classified as inventity, more exactly as **absolute individual**; and the entity denoted by the lexeme ’to spray’ as eventity, more exactly as activity.

**Word Formation**: noun base: ’spray’; conversion; simulative
8.4.1.1 The explication of the manner-component of the 'to spray'-event

The manner-component of the 'to spray'-event can be explicated as follows: water or any other substance of liquid consistency is present in a large number of drops and executes with force a path motion through the air in a fan-like formation.

8.4.1.2 The decompositional structure of the 'to spray'-event on four levels of abstraction

8.4.1.2.1 abstraction level I: to move as the exponent

basic event

I looked around the corner and saw the waves breaking up against the deck and water was spraying up from between the deck boards like fountains.
(http://www.atlantic.cu.ca/weather/hurricane/jian/mahonebay_e.html, accessed on October 21 2007)

Milk was spraying out his nose and mouth, cracker crumbs flying everywhere, and milk was landing on girls squealing and boys laughing...
(http://blog.bsc.edu/saraliz7/about/what-i-learned-in-kindergarten/, accessed on December 26 2007)

Within 100 m there was considerable volcanic activity taking place, and black lava was spraying from a small cone at a height of some 10 m above the crater...
(http://www.ijssspeleo.it/article.php?id_art=74, accessed on December 26 2007)

I had no idea, squeezed them, and a fountain of pink lemon-ade sprayed all over me and the floor. Fabulous!
(http://www.delbueno.net/index.php/site/C16/, accessed on December 25 2007)

Coffee sprayed all over my new keyboard.

The decompositional conceptual structure of 'to spray' on abstraction level I (basic event I, causeless motion) is as follows:
## Chapter 8. English Exponent-Structured Motion Verbs

<table>
<thead>
<tr>
<th></th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td><em>eventity I</em>: exponent denoted by</td>
<td></td>
</tr>
<tr>
<td>relation: subject</td>
<td>the noun base</td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td><em>eventity I</em>:</td>
<td></td>
</tr>
<tr>
<td>relation: predicate</td>
<td>manner-component</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

### Causativized Eventity I: (caused motion, agent-causation)

After a while, I went down to the basement and saw that the hot water heater *was spraying* water all over the basement.


An elf *was spraying* fake snow onto the grotto’s front door, while another was decorating the sign with glitter.

(http://www.randomcreation.livejournal.com/951.html, accessed on December 26 2007)

The pressure of the escaping gas *sprays* liquid lava high into the air, just as a soda siphon squirts water, to form fire...

(BNC)

It wasn’t a big leak, but it *was spraying* oil on the gearbox and causing a lot of smoke.

(http://www.wrightmotorsports.com/More%20News/24hour_more.htm, accessed on December 26 2007)

The decompositional conceptual structure of 'to spray' on abstraction level I (causativized eventity I, caused motion, agent-causation)

<table>
<thead>
<tr>
<th></th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td>agent</td>
<td></td>
</tr>
<tr>
<td>relation: subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td><em>eventity I</em>:</td>
<td></td>
</tr>
<tr>
<td>relation: predicate</td>
<td>manner-component</td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td><em>eventity I</em>: exponent denoted by</td>
<td></td>
</tr>
<tr>
<td>relation: object</td>
<td>the noun base</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td></td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>
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8.4.1.2.2 abstraction level II: to move like the exponent Here, large numbers of exponents of the same kind (ontologically speaking: collections) qualify.

**basic eventity II: (causeless motion)**

...gravel was spraying all over, mixed with the sparks.

Crumbs were spraying over the counter.
(http://www.geocities.com/fluffontops/fastcar.html, accessed on December 26 2007)

The decompositional conceptual structure of 'to spray' on abstraction level II (basic eventity II, causeless motion) is as follows:
<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory II: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of inventory I</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td>inventory I: the fact that a formation which consists of a large number of small portions of liquid, namely a 'spray', is implied, governs by means of domain mapping the interpretation that the exponents denoted by the subject are present in large numbers and in a high density and constitute a spray-like formation, and the focus is on the formation as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment abstraction. This is also the case when the subject position is occupied by a mass term. The approximate values of the elements 'large numbers', 'high density' and 'spray-like formation' are adjusted to the domain in question by means of the focal adjustment selection.</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>
causativized eventity II: (caused motion, agent-causation)

...the infected person sprays pathogens into the air when breathing/ coughing/ sneezing/ talking/ laughing. (BNC)
...viewed as sumptuously quartered well away from the enemy, making brief sorties to spray their bombs indiscriminately over both lines. (BNC)
Donna stepped on the accelerator and the Volvo shot forward, dirt and stones spraying up behind it as she guided it back onto the road. (BNC)
They spray things over them. (BNC)
Balor snatched great handfuls from the pack and crammed them into his mouth, spraying crumbs everywhere, letting grease drip down his chin. (BNC)
The weapon, a machine gun, loosed off a short burst, spraying half a dozen rounds in Grant's general direction. (BNC)
The big truck shuddered to a halt, spraying gravel from under his locked wheels, as Rocky tramped down hard on the...
(BNC)
He unslung the machine-gun and sprayed the bullets into the trees, sending his hunters scattering for cover. (BNC)

The decompositional conceptual structure of 'to spray' on abstraction level I (causativized eventity I, caused motion, agent-causation)
8.4.1.2.3 abstraction level III: hyperbole concepts  There are no concepts on abstraction level III, neither lexicalized concepts nor ad hoc uses, because there is no modification of the manner-component.

8.4.1.2.4 abstraction level IV: metaphorical concepts  On the one hand, metaphorical concepts are motivated by the manner-component, with the abstract entity being conceptualized as a substance which fictively executes a path motion through the air.

abstract basic motion: (causeless abstract motion)

An example was not found.

abstract causativized eventity: (caused abstract motion, agent- causation)

But I had it set to wide-angle mode which means it was spraying light all over the back wall...
(http://www.flickr.com/photos/coldmountain/1637583808/, accessed on December 26 2007)

The decompositional conceptual structure of 'to spray’ on abstraction level IV (abstract causativized eventity, caused abstract motion, agent-causation)
<table>
<thead>
<tr>
<th>grammatical relation: object</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>valency</td>
<td>agent and exponent present</td>
<td>caused motion (agent-causation), effortless</td>
</tr>
</tbody>
</table>
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS

On the other hand, metaphorical concepts are motivated by the concept on abstraction level II as they involve the idea that a large number of abstract exponents of the same kind (ontology speaking: a collection) fictively executes a path motion through the air.

abstract basic motion: (causeless abstract motion)

An example was not found

abstract causativized eventity: (caused abstract motion, agent-causation)

Microsoft Corp is spraying statistics in all directions to try and convince the industry of NT’s success. (BNC)

...we discovered your football club, Saturday afternoons for me and my mates meant spraying rude words on the side of the Co-op or hijacking shopping trolleys. (BNC)
The Howard Stern robot sprayed curses on everyone...
(http://www.elle.com/ellecom-job.html, accessed on October 21 2007)

...from National Executive Committee to Cabinet, from office to platform, spraying out speeches, press releases and lengthy papers reminding his colleagues... (BNC)

'But - look', – David was beginning to spray ideas around the small office in his enthusiasm... (BNC)

The decompositional conceptual structure of 'to spray' on abstraction level IV (abstract causativized eventity, caused abstract motion, agent-causation)

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td>agent</td>
<td>The implications concerning eventity I and eventity II are analogous to basic eventity II.</td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td>eventity IV: fictive motion event which is motivated by the the concept on abstraction level II</td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td>eventity IV: abstract exponent</td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>object</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>agent and exponent present</td>
<td>caused motion &lt;agent-causation&gt;, effectless</td>
</tr>
</tbody>
</table>
8.4.2 Nominal concept ‘storm’, verbal concept ‘to storm’

inventity I and basic eventity: The polysemous lexeme ‘storm’ is of interest here in its reading a violent disturbance of the atmosphere with strong winds and usually rain, thunder, lightning, or snow (Concise Oxford English Dictionary OED, 2002), and the polysemous lexeme ‘to storm’ in its reading be stormy. There is circular definition between inventity I and basic eventity I.

Ontology: Within the ontological framework used here, the entity denoted by the lexeme ‘storm’ is ontologically hybrid. As far the mass of air is concerned, it can be classified as inventity, more exactly as substance; as far as the motion concept is concerned, it can be classified as eventity, more exactly as activity. The entity denoted by the lexeme ‘to storm’ can be classified as eventity, more exactly as activity.

Word Formation: noun base ‘storm’; conversion; simulative

8.4.2.1 The explication of the manner-component of the ‘to storm’-eventity

The manner-component of the ‘to storm’-eventity can be explicated by the following: a strong wind blows.

8.4.2.2 The decompositional conceptual structure of the ‘to storm’-eventity on four levels of abstraction

8.4.2.2.1 abstraction level I: to move as the exponent

basic eventity I: (causeless motion, valency frame I)

It stormed hard last night. Lots of lightning and wind along with heavy rain.

The decompositional conceptual structure of ‘to storm’ on abstraction level I (basic eventity I, causeless motion, valency frame I) is as follows:
### Table 8.1: English Exponent-Shaped Motion Verbs

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: subject</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td><em>eventity I:</em> manner-component</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>0</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

#### Basic eventity I: *(causeless motion, valency frame II)*

Hurricane Hugh *storms* in. (BNC)

SC Johnson, the maker of OFF!, has extended a helping hand to the victims of Hurricane Isidore that has *stormed* through the lives...


The decompositional conceptual structure of 'to storm' on abstraction level I *(basic eventity I, causeless motion, valency frame II)* is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: subject</td>
<td><em>eventity I:</em> exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td><em>eventity I:</em> manner-component</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

#### 8.4.2.2 Abstraction level II: to move like the exponent

There are no concepts on abstraction level II, neither lexicalized concepts nor *ad hoc* uses, because only a mass of air qualifies for the *manner*-component of the 'to storm'-*eventity*.

#### 8.4.2.3 Abstraction level III: hyperbole concepts

There are two modifications of the *manner*-component on abstraction level III.

- **Modification I**: Modification I involves an exponent’s executing a path motion. There are no manner restrictions except for force-dynamics restrictions.
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basic eventity III: (causeless motion)

After he finished he stormed out of the building and I haven’t seen him since. (BNC)
The blood stormed inside her head, pounding against her temples. (BNC)
She stormed out without further words. (BNC)
Ferrari number one driver Michael Schumacher has stormed to his eighth win of the season today (Sunday), at the United States Grand Prix
(http://www.crash.net/news_view~cid~1~id~94569.htm, accessed on October 21 2007)
I clenched my eyes tight and took one more deep breath before storming away from the arena.
(http://www.fanart-central.net/chapter-49965.html, accessed on October 21 2007)
She took a deep breath before storming angrily at Doreen.
'I don’t have to listen to this sort of talk from you.’ (BNC)
Then, like a whirlwind, he was storming off through the garden, heading towards the villa. (BNC)
He hurled a chair across the set, smashing lamps and vases, then stormed off to his dressing room. (BNC)

The decompositional conceptual structure of 'to storm' on abstraction level III (basic eventity III, causeless motion) is as follows:
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity III</em>: exponents other than the exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity III</em>: modified manner-component</td>
<td><em>eventity I</em>: The fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the exponent denoted by the subject executes a path motion with great force and high speed. The approximate values of the force-dynamics elements 'great force' and 'high speed' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td></td>
</tr>
</tbody>
</table>

valency | only exponent present | causeless, effortless |

**Modification II:** Modification II consists of the exponent’s forceful execution of a path motion which obligatorily leads to a goal which is brought under the exponent’s control. The exponents are - ontologically speaking - in all the cases absolute individuals.

**resultivized eventity III:** (*effecting motion*)

23 people were killed a week ago when police *stormed* a mosque crowded with militants in Aswan and raided eight apartments. (BNC)

On April 30 some 2,400 police *stormed* the headquarters of the government-owned Korean Broadcasting System. (BNC)

Youthful crowds *stormed* the concert halls to see previously illegal art. (BNC)

On 13 January a mob *stormed* the Secretariat, the headquarters of the administration. (BNC)

Fries *storm* the food. (BNC)

The decompositional conceptual structure of 'to storm' on abstraction level III (*resultivized eventity III, effecting motion*) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation:</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject</td>
<td><em>inventory III</em>: exponents other than the exponent denoted by the noun base</td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic <em>entity</em> of Modification I.</td>
</tr>
<tr>
<td>predicate</td>
<td><em>eventivity III</em>: modified manner-component Modification II involves the additional element that a goal is brought under control. The nature and the approximate values of the element ‘a goal is brought under control’ is adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td></td>
</tr>
<tr>
<td>obligatory adverbial phrase</td>
<td>goal</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>exponent and goal present</td>
<td><em>caused, effecting</em></td>
</tr>
</tbody>
</table>

### 8.4.2.2.4 abstraction level IV: metaphorical concepts

On abstraction level IV, there are on one hand concepts which are motivated by Modification I of the hyperbole concepts insofar as an abstract entity is considered to execute a path motion with a considerable amount of force involved.

**abstract basic motion**: (*causeless abstract motion*)

Hearts *stormed* forward from the start, dominating the first half, only to miss a series of... (BNC)

While Coke *was storming* through Europe in the 1940s supporting American GI’s, Coca Cola GmbH (Germany) was busy collaborating with the Nazi regime. (http://www.sanderswood.com/viewer.cgi/press/press_images/20040524/NewSt1.jpg.html, accessed on October 21 2007)

It hid the shamed colour that *stormed* into her cheeks as she sat up, half turning away from him. (BNC)

When Hitler and Mussolini *stormed* to power 60 years ago, they were angry, hungry, young 40 year olds. (BNC)

THE ORDINARY BOYS’ debut album *has stormed* to Number One - in Japan.
Engagement of women in the labour market *has stormed* ahead - up to 51.2% in 2005 from a fraction over 30% in 1995.

A chain letter claiming to offer a free Nokia mobile phone *has stormed* to the very top of the hoax charts this month.

The decompositional conceptual structure of 'to storm' on abstraction level IV *(abstract basic eventity, causeless abstract motion)* is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: predicate</td>
<td><em>eventity IV</em>: fictive motion event which is motivated by Modification I of the hyperbole concepts</td>
<td>The implications concerning certain aspects of the manner-component are analogous to <em>basic eventity</em> of Modification I</td>
</tr>
</tbody>
</table>

On the other hand, there are concepts which are motivated by Modification II insofar as an abstract entity is considered to dynamically enter another entity and bring it under control.

**abstract resultivized eventity:** *(abstract effecting motion)*

An independent documentary made for just $65,000, the movie *has stormed* the American box office, cleaning up $10 million so far.

And this graduate from the National School of Drama, *stormed* the hearts of fans with his arrival.
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS

The other far more liberating picture was that of these Tirupati women barbers who have stormed a male bastion.

They have rewritten the record books, stormed the male bastion of Grandmaster’s chess, and defied the laws of probability. (BNC)

The decompositional conceptual structure of 'to storm' on abstraction level III (abstract resultivized eventity, abstract effecting motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity IV: concrete or abstract exponent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity IV: fictive motion event which is motivated by Modification II of the hyperbole concepts; Since Modification II involves the additional element that a goal is brought under control, the metaphorical uses which are motivated by Modification II involve the element that an abstract goal is brought under control. The nature and the approximate values of the element 'an abstract goal is brought under control' are adjusted to the domain in question by means of the focal adjustment selection.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The implications concerning certain aspects of the manner-component are analogous to basic eventity of Modification I.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: obligatory adverbal phrase</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>goal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>exponent and goal present</td>
<td></td>
<td>caused effecting</td>
</tr>
</tbody>
</table>

8.4.3 Nominal concept ’gust’, verbal concept ’to gust’

*eventity I* and *basic eventity I*: The polysemous lexeme 'gust' is of interest here in its reading a brief, strong rush of wind (Concise Oxford
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS

English Dictionary OED, 2002), and the polysemous lexeme 'to gust' in its reading to blow in gusts (OED). There is circular definition between eventity I and basic eventity I.

Ontology: Within the ontological framework used here, the entity denoted by the lexeme 'gust' is ontologically hybrid. As far the mass of air is concerned, it can be classified as eventity, more exactly as substance; as far as the as the motion concept is concerned, it can be classified as eventity, more exactly as activity. The entity denoted by the lexeme 'to gust' can be classified as eventity, more exactly as activity.

Word Formation: noun base: 'gust'; conversion; simulative

8.4.3.1 The explication of the manner-component of the 'to gust'-eventity

The manner-component of the 'to gust'-eventity can be explicated as follows: there is a sudden, strong wind which lasts only for a short time.

8.4.3.2 The decompositional conceptual structure of the 'to gust'-eventity on four levels of abstraction

8.4.3.2.1 abstraction level I: to move as the exponent

basic eventity I: (causeless motion, valency frame I)

At times it gusted so strongly that it pushed my bike off the road and onto the gravel, and I'd have to stop and regain my balance.


The decompositional conceptual structure of 'to gust' on abstraction level I (basic eventity I, causeless motion, valency frame I) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: subject</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td>eventity I: manner-component</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>0</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>
**basic entity I:** *(causeless motion, valency frame I)*

No snow in the air that morning, only the wind that *gusted* and trapped the men on the perimeter path. (BNC)
A breeze *has gusted* up a bit but maybe that’s just to remind us that we will once again - likely quite soon - have weather matters to deal with.

The decompositional conceptual structure of 'to gust' on abstraction level I *(basic entity I, causeless motion, valency frame I)* is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inentity I:</em> exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entity I:</em> manner-component</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

8.4.3.2.2 abstraction level II: to move like the exponent  There are no concepts on abstraction level II, neither lexicalized concepts nor *ad hoc* uses, because only a mass of air qualifies for the *manner*-component of the 'to gust'-*entity*.

8.4.3.2.3 abstraction level III: hyperbole concepts  There are no concepts on abstraction level III, neither lexicalized concepts nor *ad hoc* uses, because there is no modification of the *manner*-component.

8.4.3.2.4 abstraction level IV: metaphorical concepts  Metaphorical concepts are motivated by the *manner*-component since abstract entities are conceptualized as *substances* which execute a fictive, sudden path motion.

**abstract basic motion:** *(causeless abstract motion)*

Holly walked steadily along a stamped snow path, and the laughter from behind *gusted* to his ears. (BNC)
A wind of freedom has *gusted* through the Iraqi media for the past three months.
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS 303

(http://www.rsfl.org/article.php?ld_article=7583, accessed on October 21 2007)

This was a tournament, he realized, and a voice *gusted* past his ear that he could not afford to lose.
(http://www.chatarea.com/TheUncertainAreas.m2749097, accessed on December 29 2007)

A short wordless sound *gusted* from Lisa’s lips. "Ship ahoy," she said under her breath, knowing Martin would hear her at this uncomfortable proximity.
(http://www.ebooksbygreg.com/books/portrait_oftheheart/ch_portraitoftheheart_02.htm, accessed on December 29 2007)

The decompositional conceptual structure of 'to gust' on abstraction level IV (*abstract basic eventity, causeless abstract motion*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity IV: fictive motion event which is motivated by the manner-component</em></td>
<td><em>eventity I: the fact that a substance, namely 'air', is implied governs by means of domain mapping the interpretation of the abstract exponent in terms of a substance.</em></td>
<td><em>eventity I: the fact that the manner-component is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject executes a sudden, brief path motion with great force. The approximate values of the element 'sudden, brief path motion' and the force-dynamics element 'great force' are adjusted to the domain in question by means of the focal adjustment selection.</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
<td></td>
</tr>
</tbody>
</table>
8.4.4 Nominal concept 'billow', verbal concept 'to billow'

_inventity I and basic eventity I:_ The polysemous lexeme 'billow' is of interest here in its reading _a large undulating mass of cloud, smoke or steam_ (Concise Oxford English Dictionary OED, 2002), and the polysemous lexeme 'to billow' in its reading _of some cloud or steam to move or flow outward and with an undulating motion_ (Concise Oxford English Dictionary OED, 2002). There is circular definition between _inventity I and basic eventity I._

_Ontology:_ Despite the fact that the nominal and the verbal concept imply each other, the concept denoted by the noun is ontologically not hybrid. Thus, within the ontological framework used here, the entity denoted by the lexeme 'billow' can be classified as _inventity_, more exactly as _absolute individual_; the entity denoted by the lexeme 'to billow' can be classified as _eventity_, more exactly as _activity._

_Word Formation:_ noun base: 'billow'; conversion; simulative

8.4.4.1 The explication of the _manner_-component of the 'to billow'-eventity

The _manner_-component of the 'to billow'-eventity can be explicated as follows: a relatively large formation of clouds, air or smoke executes a path motion in an undulating manner.

8.4.4.2 The decompositional conceptual structure of the 'to billow'-eventity on four levels of abstraction

8.4.4.2.1 abstraction level I: to move as the exponent

_basic eventity I:_ (causeless motion)

...you may not be too popular when the greasy smoke starts _billowing_ around! (BNC)

Smoke was _billowing_ out from it now, where fuel had spilled over the hot engine. (BNC)

Swirls of cloud _billed_ down from the Towers and the glaciers hung vertically, suspended like... (BNC)
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS 305

But just as the kettle was coming to the boil a black cloud bilowyed in through one of the open windows and enveloped the entire tea party. (BNC)

Across the square a gush of steam bilowyed from the kitchen vent of Reece’s Restaurant and swallowed the sparks of a... (BNC)

The decompositional conceptual structure of 'to billow' on abstraction level I (basic entity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation:</th>
<th>subject</th>
<th>predicate</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory I:</td>
<td>exponent denoted by the noun base</td>
<td>manner-component</td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

8.4.4.2 abstraction level II: to move like the exponent Exponents of liquid or semi-liquid consistency which are, ontologically speaking, substances, qualify here.

basic entity II: (causeless motion)

Specifically, when I’m deep powder skiing, and even more specifically when I’m just reaching the bottom of a turn and the snow has bilowyed over my head in a curtain of white and gray and I’m protected by a neck gaiter pulled up over my mouth and fog-free goggles over my eyes and I’m completely beyond thought or cares.


The ball of fire that was bilowying towards Hrun faded until, when it reached him, it was no more than a puff... (BNC)

Further up, like part of a discarded doll, was the top half of a woman’s torso, blood bilowying from where the head should have been, the remnant of a flowered dress... (BNC)

The decompositional conceptual structure of 'to billow' on abstraction level II (basic entity II, causeless motion) is as follows:
### Chapter 8. English Exponent-shaped Motion Verbs

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td><em>inventity II</em>: exponents other than the exponent denoted by the noun base which qualify for the <em>manner</em>-component, with certain properties of the exponent being readjusted in terms of <em>inventity I</em></td>
<td><em>inventity I</em>: the fact that a formation, namely 'a billow', is implied governors by means of <em>domain mapping</em> the interpretation that the exponent denoted by the subject constitutes a large total quantity. The approximate values of the element 'large total quantity' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>. <em>Eventy I</em>: the fact that the <em>manner</em>-component is implied governors by means of <em>domain mapping</em> the interpretation that the exponent denoted by the subject moves in an undulating fashion. The approximate values of the element 'to move in an undulating fashion' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
</tr>
<tr>
<td>relation: subject</td>
<td><em>eventy II</em>: unmodified <em>manner</em>-component with the values of the manner elements being readjusted</td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

#### 8.4.4.2.3 Abstraction Level III: Hyperbole Concepts

There are no concepts on abstraction level III, neither lexicalized concepts nor *ad hoc* uses, because there are no modifications of the *manner*-component.
8.4.4.2.4 abstraction level IV: metaphorical concepts  Metaphorical concepts are motivated by the manner-component. They involve the element that an abstract entity fictively executes a path motion in an undulating manner.

abstract basic eventity: (causeless abstract motion)

...opened and Carson was hit by the rise in the music level and a sickly aroma which billowed out around him. (BNC)
Those qualities came in handy last week, as he dealt with the scandal at the Department of Housing and Urban Development, which has billowed from a candlestick into an inferno. (http://www.time.com/time/magazine/article/0,9171,958199-1,00.html, accessed on October 21 2007)
President Bush, Secretary Rumsfeld and Secretary of State Colin Powell have skillfully nurtured the public support that has billowed up across the nation since. (http://www.starbulletin.com/2001/10/28/editorial/halloran.html, accessed on October 21 2007)
One morning, when a windy golden sunrise was billowing over the gulf in waves...
ctworldwideschool.org/library/books/youth/anneofgreen-gables/AnnesHouseofDreams/chap34.html, accessed on October 21 2007)
Yet criticism billowed in the wake of the severe economic recession that began in New England in 1988 and Dukakis’ failed presidential campaign that same...

The decompositional conceptual structure of 'to billow' on abstraction level IV (abstract basic eventity, causeless motion) is as follows:
8.4.5 Nominal concept 'stream', verbal concept 'to stream'

*inventive I* and *basic event* I: The polysemous lexeme 'stream' is of interest here in its reading *a small narrow river* (Concise Oxford English Dictionary OED, 2002); the concept *to move as the exponent denoted by the noun base* is not lexicalized. It is explicated in 8.4.5.1.. There is circular definition between *inventive I* and *basic event* I.
**Ontology:** Despite the fact that the nominal and the verbal concept imply each other, the concept denoted by the noun is ontologically not hybrid. Thus within the ontological framework used here, the entity denoted by the lexeme 'stream' can be classified as *inventity*, more exactly as *substance*. (A classification as *absolute individual* would also be possible; the classification as *substance* is, however, justified because it is the flowing mass of water which is of importance for the verbal concept); the entity denoted by the lexeme 'to stream' can be classified as *eventity*, more exactly as *activity*.

**Word Formation:** noun base: 'stream'; conversion; simulative

### 8.4.5.1 The explication of the *manner*-component of the 'to stream'-eventity

The *manner*-component of the 'to stream'-*eventity* can be explicated as follows: a small to medium quantity of water, namely the water of a small river, flows constantly.

### 8.4.5.2 The decompositional conceptual structure of the 'to stream'-eventity on four levels of abstraction

#### 8.4.5.2.1 abstraction level I: to move as the exponent

**basic eventity I:** *(causeless motion)*

A fordable river *streamed* along the way of the invading Graeco-Bactrians on their left flank.

(http://www.carthaginian.de/040108_vsGraecoBactrians.html, accessed on October 21 2007)

But the river *streamed* into the river Duna, and caused damage in Yugoslavia, too.

(http://www.iearn.hu/waters/letters/tragedy.htm, accessed on October 21 2007)

The decompositional conceptual structure of 'to stream' on abstraction level I (*basic eventity I, causeless motion*) is as follows:
8.4.5.2.2 abstraction level II: to move like the exponent  Substances of liquid consistency qualify here.

*basic entity II: (causeless motion)*

The tea *streamed*, honey-gold, from a blue pot, and round the door came the cat Hastings,… (BNC)

...cowering against the wall, blubbery like a child, the blood from his broken nose *streaming* down his face. (BNC)

...when I met a student from my course in the RAF Club, he related with tears *streaming* down his cheeks an incident when 'Happy' was taking the course on rifle… (BNC)

...covers the wall and the line from Marlowe, about Christ’s blood *streaming* in the firmament, is spoken, Wilde’s belief that a work of art could be… (BNC)

Bellot retired, blood *streaming* from a head wound. (BNC)

Condensation *was streaming* down the windowpanes, so he wiped one dry with his shirt-cuff to gain a… (BNC)

The decompositional conceptual structure of ‘to stream’ on abstraction level II (*basic entity II, causeless motion*) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventivity II:</em> exponents other than the exponent denoted by the noun base which qualify for the manner-component with certain properties of the exponent being readjusted in terms of <em>inventivity I</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventivity II:</em> unmodified manner-component with the values of the manner elements being readjusted</td>
<td><em>inventivity I:</em> the fact that a formation, namely a 'stream', is implied governs by means of <em>domain mapping</em> the interpretation that the exponent denoted by the subject is present in a long and narrow formation and in long and narrow formations, respectively, and constitutes a small to medium total quantity. The approximate values of the elements 'long and narrow formations' and 'small to medium total quantity' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>. <em>inventivity I:</em> the fact that the manner-component is implied governs by means of <em>domain mapping</em> the interpretation that the exponent denoted by the subject flows constantly. The approximate values of the element 'to flow constantly' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

*I-Subject-alternation:*

She *was streaming* with sweat.
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS

(http://www.wanabo.com/streaming, accessed on October 21 2007)
The ice was harder, it was overhanging and it was streaming with icy water.
Of more concern was the state of Pablo Cavallero, the Celta goalkeeper, whose face was streaming with blood after he had accidentally taken the full force of Edu’s knee.
(http://www.timesonline.co.uk/tol/sport/article1029344.ece, accessed on October 21 2007)
...and when I got up my face and knee were streaming with blood. (BNC)
...were enjoying the view of me with a glove covered in steaming soup and a face streaming with tears. (BNC)

The decompositional conceptual structure of ‘to stream’ on abstraction level I (I-Subject-alternation) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>background location</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td></td>
<td>The implications concerning eventity I and eventity II are analogous to basic eventity II.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: with-phrase</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity II: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of eventity I</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>exponent and background present</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.4.5.2.3 abstraction level III: hyperbole concepts There are two modifications of the manner-component on abstraction level III.

Modification I: Modification I involves the element that a formation of a large number of exponents of the same kind (ontologically speaking: a collection) executes a path motion. There are no manner restrictions except for force-dynamics restrictions.
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*basic entity III: (causeless motion)*

The crowds were streaming away, muttering about a Rovers run of one win in 11 matches, when... (BNC)

...two miles beyond Johannesburg's southern suburbs at 7.30 am as commuters were streaming to work and mothers were delivering children to school. (BNC)

...with men from the depots of Verdun, civilian refugees and shattered regiments all streaming back to the rear. (BNC)

The villagers, tired now, were bringing the festivities to an end and streaming back across the green to the tavern or to their homes in search of other... (BNC)

...Piccadilly Circus, which was bright as day, and were surrounded by the crowds streaming from the theaters, cafés and dives which populated the area,... (BNC)

The Love Parade, a giant fiesta of techno music that has streamed its way through Berlin's streets, drawing partiers from around the world every summer for over 13 years, will not be held here this year.


The decompositional conceptual structure of 'to stream' on abstraction level III (*basic entity III, causeless motion*) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 8. ENGLISH EXponent-SHAPeD MOTION VERBS 315

L-Subject-alternation:

Now the soldiers and settlers were gone, taking the watch towers with them, and the road was streaming with Palestinians in cars and donkey carts, on foot and bicycles, making what was for many their first visit to the other side of the fence.

The residence of the actor was streaming with visitors who dropped in and wished the...

The bamboo curtain was up, the then British colony was streaming with refugees from the Mainland, and Paul was set to begin his Asian ministry.
(http://www.asianoutreach.org/About/Mission/History.php, accessed on October 21 2007)

The decompositional conceptual structure of 'to stream' on abstraction level III (L-Subject-alternation) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
<th>grammatical relation: with-phrase</th>
<th>valency</th>
</tr>
</thead>
<tbody>
<tr>
<td>background location</td>
<td>eventity III: modified manner-component</td>
<td>eventity III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td>exponent and background present</td>
</tr>
</tbody>
</table>

The implications concerning eventity I and eventity II are analogous to basic eventity of Modification I.

Modification II The second modification is a case of fictive motion. The extension of objects is conceptualized as a fictive path motion.
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS  316

**basic eventity III: (causeless motion)**

...and, beyond, the Canadian Pacific’s single pair of rails streaming away into the darkness. (BNC)

She took to living in her swimsuit, a colorful sarong tied at her hips, long black hair streaming loose and silken down her slender back,... (BNC)

The loose sash of of her dress streamed as a sudden gust curled through the branches...

...her dress was streaming behind her, straight out behind her like flags unfurled.

The decompositional conceptual structure of 'to stream' on abstraction level III (**basic eventity III, causeless motion**) is as follows:
### Chapter 8. English Exponent-Shaped Motion Verbs

<table>
<thead>
<tr>
<th>Grammatical Relation: Subject</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>evident III:</code> exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical Relation: Predicate</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>evident III:</code> modified manner-component</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>evident I:</code> the fact that the exponent 'stream' is implied governed by means of domain mapping the interpretation that the extension of the exponent denoted by the subject is long. Further, the fact that the surface structure of flowing water is implied governed in certain cases, i.e. in the case of 'hair' or 'cloth' by means of domain mapping a certain conceptualization of the appearance of the exponent's surface structure, e.g. the interpretation that wavy hair is rippling down from the head. The approximate values of the elements 'long extension' and 'surface structure like flowing water' are adjusted to the domain in question by means of the focal adjustment selection.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><code>evident I:</code> the fact that certain aspects of the manner-component are implied governed by means of domain mapping an implication of movement, e.g. that rails are perceived to be extending out ahead of a moving train or that hair is flowing over the contours of the body.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td><code>causeless, effectless</code></td>
<td></td>
</tr>
</tbody>
</table>
8.4.5.2.4 abstraction level IV: metaphorical concepts  Metaphorical concepts are on the one hand motivated by the manner-component in governing a conceptualization of abstract entities as liquids which can flow.

abstract basic motion: (causeless abstract motion)

...the portraits on the wall, assume a macabre life of their own as the setting sun streamed in through the window. (BNC)
A flood of emotion streamed out of my mouth and I could barely contain my distress at how tired I was and how worried I was...

The decompositional conceptual structure of 'to stream' on abstraction level IV (abstract basic eventity, causeless abstract motion) is as follows:
<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventory IV</em>: abstract exponent</td>
<td><em>inventory I</em>: The fact that a <em>substance</em>, namely 'water', is implied governs by means of <em>domain mapping</em> the interpretation of the exponent denoted by the subject in terms of a <em>substance</em>. The fact that a formation, namely a 'stream', is implied governs by means of <em>domain mapping</em> the interpretation that the exponent denoted by the subject is present in a long and narrow formation and in long and narrow formations, respectively and constitutes a small to medium total quantity. The approximate values of the elements 'small to medium total quantity' and 'long and narrow formation' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td></td>
</tr>
</tbody>
</table>

| Grammatical relation: predicate | *event IV*: fictive motion event which is motivated by the manner-component | *event I*: The fact that the manner-component is implied governs by means of *domain mapping* the interpretation that the exponent denoted by the subject fictively flows with constancy. The approximate values of the element 'to flow with constancy' are adjusted to the domain in question by means of the focal adjustment *selection*. |

| Valency | only exponent present | *causeless, effectless* |

**L-Subject-alternation:**

By the end of the soldier’s horrific, yet triumphant tale my face was streaming with emotion.
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS

I collected Oliver, who was streaming with cold, and began driving the 24 miles to Haywards Heath.

The decompositional conceptual structure of ‘to stream’ on abstraction level IV (L-Subject-alternation) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>background: <em>location</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity IV</em>: fictive motion event which is motivated by the manner-component</td>
<td></td>
<td>The implications concerning <em>eventity I</em> and <em>eventity IV</em> are analogous to basic <em>eventity IV</em>.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>with-phrase</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity IV</em>: abstract exponent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>background and exponent present</td>
<td></td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

On the other hand, there are abstract concepts which are motivated by Modification I of the hyperbole concepts. Here, many abstract entities of the same kind (ontologically speaking: a *collection*) are considered to execute a fictive path motion.

abstract basic motion: (*causeless abstract motion*)

Every argument that Clinton supporters had uttered about the Whitewater investigation was streaming from his mouth.

So many lousy ideas were streaming out of the Virginia legislature in Richmond these past two months that it was tough to keep track of them all.

Before long, ideas were streaming into his office from every corner of the campus and beyond.

The words were streaming through my brain. Finally, fighting back tears, I was able to speak.
The decompositional conceptual structure of ‘to stream’ on abstraction level IV (abstract basic event, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: subject</td>
<td><em>inventity IV</em>: abstract exponent</td>
<td>The implications concerning <em>inventity I</em> and <em>eventity I</em> are analogous to basic event of Modification I.</td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td><em>eventity IV</em>: fictive motion event which is motivated by Modification I of the hyperbole concepts</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

*L-Subject-alternation:*

It was atypical and *streaming* with ideas that were so absolutely untapped that making something of it was a process.

The decompositional conceptual structure of ‘to stream’ on abstraction level IV (*L-Subject-alternation*) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: subject</td>
<td>background: <em>location</em></td>
<td>The implications concerning <em>inventity I</em> and <em>eventity I</em> are analogous to basic event of Modification I.</td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td><em>eventity IV</em>: fictive motion event which is motivated by Modification I of the hyperbole concepts.</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>background and exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>
8.4.6 Nominal concept 'eddy', verbal concept 'to eddy'

*inventory I* and *basic entity I*: The meaning of the lexeme 'eddy' is a circular movement of water causing a small whirlpool (Concise Oxford English Dictionary OED, 2002). The meaning of the lexeme 'to eddy' is (of water ...) move in circular way. There is circular definition between *inventory* and *basic entity*.

**Ontology:** Despite the fact that the nominal and the verbal concept imply each other, the concept denoted by the noun is ontologically not hybrid. Thus, within the ontological framework used here, the entity denoted by the lexeme 'eddy' can be classified as *inventory*, more exactly as *absolute individual*; the entity denoted by the lexeme 'to eddy' can be classified as *eventivity*, more exactly as *activity*.

**Word Formation:** noun base: 'eddy'; conversion; similitative

8.4.6.1 The explication of the *manner*-component of the 'to eddy'-eventivity

The *manner*-component of the 'to eddy'-eventivity can be explicated as follows: a mass of water rotates quickly. This is an inner movement.

8.4.6.2 The decompositional conceptual structure of the 'to eddy'-eventivity on four levels of abstraction

8.4.6.2.1 abstraction level I: to move as the exponent

*basic entity I*: (causeless motion)

I nodded and stood holding on by a tuft of coarse sedge, watching him as he threw himself on his side, and went off pretty close to the bank, where the water was eddying;
(http://www.gutenberg.org/files/21293/21293.txt, accessed on October 21 2007)

They were about a foot off the bank in the tops where the water was eddying.

We traveled about a kilometer up the creek through the fast flowing water and arrived at a couple of tight, deep bends where the water was eddying beautifully.
The decompositional conceptual structure of 'to eddy' on abstraction level I 
(basic eventity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eventity I: exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eventity I: manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

L-Subject-alternation:

The boat drifts slowly along, eddying with the water.

Before them lay an arm of the sea, sweeping and eddying with a strong incoming tide.

The decompositional conceptual structure of 'to eddy' on abstraction level I (L-Subject-alternation) is as follows:

<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background: location</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eventity I: manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: with-phrase</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eventity I: exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exponent and background present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS 324

8.4.6.2.2 abstraction level II: to move like the exponent  On abstraction level II, substances other than water qualify, i.e. substances of gaseous, liquid and semi-liquid consistency, and collections which form a whirlpool.

basic entity II: (causeless motion)

At the far end of the room was a second door, which stood half open; a bogwood fire burned on a hearth somewhat less rude than the one which I had first seen, but still very little better appointed with a chimney, for thick wreaths of smoke were eddying with every fitful gust about the room. (http://www.worldwideschool.org/library/books/lit/socialcommentary/ThePurcellPapers3/chap9.html, accessed on October 21 2007)

Another day dawned and the mists from the river swirled and eddied round the banks and crept up to the house the Hanging Judge had built. (BNC)

The smoke curled between them, eddied to Erlich’s face. (BNC)


Wreckage was eddying all around him, but he pulled himself up on the hatch cover before he was injured by the swirling debris. (http://www.telegraphy.net.nz/showcontents.php?ezSID=2f67db0_0_1415a_7_933_d32e1d9f73b&tcpgroupname=&groupname=ssoxxxttt&subgroupname=Republic, accessed on October 21 2007)

I trudged through the autumn woods, as the crispy leaves eddied around my feet, and heard his voice whispering in the breeze. (http://www.article99.com/reprint-article/?art=9691, accessed on January 1 2008)

The decompositional conceptual structure of ‘to eddy’ on abstraction level II (basic entity II, causeless motion) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
</table>
| *event* II: exponent other than the exponent denoted by the noun base which qualify for the manner-component with certain properties of the exponent being readjusted in terms of *event* I | *event* I: The fact that a substance, namely 'water', is implied governs (in the case that the subject position is occupied by a noun denoting an entity which is ontologically speaking - an absolute individual) by means of domain mapping the interpretation that the exponent denoted by the subject is present in large numbers and in a high density. The focus is on the exponents as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment abstraction. The fact that a formation, namely an 'eddy', is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject is present as a whirlpool-like formation. The approximate values of the elements 'large numbers', 'high density' and 'whirlpool-like formation' are adjusted to the domain in question by means of the focal adjustment selection. *event* I: the fact that the manner-component is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject rotates with great force and high speed. The approximate values of the force-dynamics elements 'great force' and 'high speed' are adjusted to the domain in question by means of the focal adjustment selection.

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>event</em> II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td><em>causeless</em>, <em>effectless</em></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS

L-Subject-alternation:

The sky was a curved limpid shell of blue *eddie* with breezes.
(http://www.scuttlebuttsmallchow.com/starkI.html, accessed on October 21 2007)

The decompositional conceptual structure of *to eddy* on abstraction level II (*L-Subject-alternation*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>background: location</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>event II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td></td>
<td>The implications concerning event I and event II are analogous to basic event II.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: with-phrase</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>event II: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of event I</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>exponent and background present</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

8.4.6.2.3 abstraction level III: hyperbole concepts There are two modifications of the manner-component on abstraction level III.

Modification I Modification I involves the idea that a large number of exponents of the same kind (ontologically speaking: *a collection*) move all over the place.

**basic event III: (causeless motion)**

A clutch of young mothers gossiped outside the shop, with children *eddying* around them. (BNC)
The life in the airport *eddie* round her. (BNC)
Butterflies were tumbling over their horses’ heads, *eddying* around their shoulders, fanning their cheeks with imperceptible wing-beats.
...drumbeat of explosions rolled closer – impelling a flux of refugees to *eddy* towards the troopers and the seeming sanctuary of the palace region beyond. (BNC)

It was an easy request to fill: The world was *eddy-ing* around him.

(http://www.fanfiction.net/s/3462895/1/The_kidnapping_of_Sarah_/McGee, accessed on October 21 2007)

The decompositional conceptual structure of 'to eddy’ on abstraction level III (*basic eventity III, causeless motion*) is as follows:
<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>invention III:</em> exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the <em>manner</em>-component on abstraction level II or a lexeme denoting a place</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>event</em> III: modified <em>manner</em>-component</td>
<td><em>invention I:</em> the fact that a <em>substance</em>, namely 'water', is implied governs by means of <em>domain mapping</em> the interpretation that the exponents denoted by the subject are present in large numbers and in a high density and the exponents involved are conceptualized as a whole. This conceptualization can be attributed to the focal adjustment <em>abstraction</em>, i.e. a higher level of schematicity is chosen. The approximate values elements 'large numbers' and 'high density' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>. When the subject position is occupied by a lexeme denoting a place, this interpretation is reached by means of <em>domain highlighting</em>, i.e. the place is interpreted as being full of a large number of a large number of exponents which move all over the place. <em>event</em> I: the fact that certain aspects of the <em>manner</em>-component are implied governs by means of <em>domain mapping</em> the interpretation that the exponents denoted by the subject move with great force and high speed. The approximate values of the force-dynamics elements 'great force' and 'high speed' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS 329

L-Subject-alternation:

...cracked pavements *eddy*ng with shoppers, empty Bacardi Breezers or Dixie Chicken wrappers piled in the stagnant pools of rubbish at the edge.  
(http://ww.arts.guardian.co.uk/features/story/0,11710,889980,00.html, accessed on December 26 2007)

...streets that boiled and *eddied* with yellow human beings, who worshipped strange gods, ate strange foods, and diffused strange suffocating smells.  
(http://www.gutenberg.org/files/15614/15614.txt, accessed on December 29 2007)

The decompositional conceptual structure of 'to eddy' on abstraction level III (*L-subject-alternation*) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: subject</td>
<td>background: <em>location</em></td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td><em>eventivity III</em>: modified <em>manner</em>-component</td>
<td>The implications concerning <em>eventivity I</em> and <em>eventivity I</em> are analogous to <em>basic eventivity</em> of Modification I.</td>
</tr>
<tr>
<td>grammatical relation: with-phrase</td>
<td><em>eventivity III</em>: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the <em>manner</em>-component on abstraction level II</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>exponent and background present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

Modification II: Modification II involves a single exponent's rotating and additionally executing a path motion and moving all over the place, respectively.

*basic eventity II*: (causeless motion)

My car weaves gracefully around the ambulance, *eddy*ng with the rest of the traffic, almost as if I am in control. 
(http://www.slowtrains.com/vol3issue3/day-macleodvol3issue3.html, accessed on October 21 2007)
The decompositional conceptual structure of 'to eddy' on abstraction level III (basic event III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>event III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>event III: modified manner-component</td>
<td>event I: the fact that certain aspects of the manner-component are implied by means of domain mapping the interpretation that the exponent denoted by the subject moves with great force and high speed. The approximate values the force-dynamics elements 'great force' and 'high speed' are adjusted to the domain in question by means of the focal adjustment selection.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

8.4.6.2.4 abstraction level IV: metaphorical concepts First, there are metaphorical concepts which are motivated by the manner-component since an abstract entity is conceptualized as a substance, which fictively forms a whirlpool.

abstract basic motion: (causeless abstract motion)

A sour, thick fear eddied in his throat. (BNC)
Then the thought eddied away again out of the grasp of his mind,... (BNC)
Advocaat was a composed and comfortable figure, apparently untroubled by the often outrageous criticism that has eddied around his stewardship of the national team since the moderate performance in the 1-1 draw with Germany in their
opening match.
(http://www.sport.scotsman.com/topics.cfm?tid=998&id=746612004, accessed on October 21 2007)

Music, talk and laughter swirled and *eddied*, while perfume, cigar smoke and the aroma of roasting coffee mingled with a... (BNC)

The decompositional conceptual structure of 'to eddy' on abstraction level IV (*abstract basic eventity, causeless abstract motion*) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>entity IV: abstract exponent</td>
<td>inventory I: the fact that a <em>substance</em>, namely 'water', is implied governs by means of <em>domain mapping</em> the interpretation of the exponent denoted by the subject in terms of a <em>substance</em>. The fact that a formation, namely an 'eddy', is implied governs by means of <em>domain mapping</em> the interpretation that the exponent denoted by the subject fictively constitutes a whirlpool-like formation. The approximate values of the element 'whirlpool-like formation' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>. entity I: the fact that the <em>manner</em>-component is implied governs by means of <em>domain mapping</em> the interpretation that the exponent denoted by the subject fictively moves in an eddying fashion with great force and high speed. The approximate values of the force-dynamics elements 'great force' and 'high speed' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td>entity IV: fictive motion event which is motivated by the <em>manner</em>-component</td>
<td>valency</td>
</tr>
</tbody>
</table>

**I-Subject-alternation:**

Her stomach *was eddying* with a combination of nausea and emptiness and she *was trembling* with the effort not to cry again.

(http://www.vampirecows.com/odd/authors/jacqui/surrogatebg10.html, accessed on October 21 2007)
The spate flows wildly around houses, eddying with threatening sound.
(http://www.roadsong.tripod.com/PlacesAndTimesCollection.html, accessed on October 21 2007)
The word of god is eddying with comfort...
(http://www.graceindia.in/Html/English/Messages/message4.htm, accessed on October 21 2007)
All of a sudden each comic is eddying with a main narrative.
Leaves whispered, songbirds chirped, shadows eddied with sunlight, and you thought you saw her face in the speckled bark.
(http://www.rockandsling.org/Spring%202006/Matthew%20Quick.htm, accessed on December 29 2007)
His voice eddied with the effort of preventing his memories from looping like an antiquated film reel.
(http://www.annaguirre.com/free-reads/still-we-live/, accessed on December 29 2007)

The decompositional conceptual structure of 'to eddy' on abstraction level IV (L-Subject-alternation) is as follows:

| grammatical relation: subject | background: location |
| grammatical relation: predicate | eventivity IV: fictive motion event which is motivated by the manner-component |
| grammatical relation: with-phrase | eventivity IV: abstract exponent |
| valency | exponent and background present |

The implications concerning eventicity I and eventicity I are analogous to basic eventivity IV.

Second, there are metaphorical concepts which are motivated by the concept on abstraction level II and/or by Modification I of the hyperbole concepts since a large number of abstract entities of the same kind is considered to form a whirlpool and to move around all over the place, respectively.

abstract basic motion: (causeless abstract motion)
News of Dr Khan’s murder had *eddied* amongst the foreign specialists on the project. (BNC)
The echoes swirled and *eddied* all about them, but whether from the future or the past, Grainne was never at... (BNC)

The decompositional conceptual structure of ’to eddy’ on abstraction level IV (*abstract basic event*ty, *causeless abstract motion*) is as follows:

<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>invention IV</em>: abstract exponent</td>
<td></td>
<td>The implications concerning <em>invention I</em> and <em>invention I</em> are analogous to <em>basic event</em>ty II and <em>basic event</em>ty of Modification I respectively.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>event</em>ty IV*: fictive motion event which is motivated by the concept on abstraction level II and/or Modification I of the hyperbole concepts</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

**L-Subject-alternation:**

Mazar, not surprisingly, *eddied* with rumors.
(http://www.worldhum.com/dispatches/item/war_zones_for_ids? accessed on October 21 2007)

His voice was *eddying* with the vowels of all rivers.

The music, swaying and *eddying* with the oscillations of the crowd,...

But it is only the moist wind *eddying* with memories and loss.
(http://www.polygon.com/article/061012.html, accessed on December 26 2007)

The construct of the bar in his head was continually in motion, flowing, swirling and *eddying* with the usual shades and tints of the erratic jumble that ...

The decompositional conceptual structure of ’to eddy’ on abstraction level IV (*L-Subject-alternation*) is as follows:
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS  335

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory IV: abstract exponent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory IV: fictive motion event which is motivated by Modification I of the hyperbole concepts.</td>
<td></td>
<td>The implications concerning inventory I and inventory I are analogous to basic inventory of Modification I.</td>
</tr>
</tbody>
</table>

valency | only exponent present | causeless, effectless |

Third, there are metaphorical concepts which are motivated by Modification II of the hyperbole concepts. They involve a single exponent’s fictively rotating and additionally executing a path motion and moving all over the place, respectively.

abstract basic motion: (causeless abstract motion)

She was eddying around in the middle of the story she was telling to the night, or to God, it seemed, more than to Buck or me.


The decompositional conceptual structure of 'to eddy' on abstraction level IV (abstract basic inventory, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory IV: abstract exponent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory IV: fictive motion event which is motivated by Modification II of the hyperbole concepts</td>
<td></td>
<td>The implications concerning inventory I and inventory I are analogous to basic inventory of Modification II.</td>
</tr>
</tbody>
</table>

valency | only abstract exponent present | causeless, effectless |
8.5 Formations II

8.5.1 Nominal concept 'throng', verbal concept 'to throng'

_inventity I_ and _basic eventity I_: The meaning of the lexeme 'throng' is a large, densely packed crowd (Concise Oxford English Dictionary OED, 2002); the meaning of the lexeme 'to throng' is _to flock (...)_ in _great numbers_ (Concise Oxford English Dictionary OED, 2002). There is noncircular definition between _inventity I_ and _basic eventity I_.

**Ontology:** Within the ontological framework used here, the entity denoted by the lexeme 'throng' can be classified as _inventity_, more exactly as _collection_; the entity denoted by the lexeme 'to throng' can be classified as _eventity_, more exactly as _activity_.

Word Form noun noun base: 'throng', conversion, simulative

8.5.1.1 The explication of the _manner_-component of the 'to throng'_eventity

The verb 'to throng' has a motion component only when the component 'path' or 'goal' is additionally coded in the sentence. The _manner_-component of the 'to throng'_eventity can be explicated as follows: the formation denoted by the noun base executes a path motion. As far as manner elements are concerned, there is first the element present that the exponents involved are eager to get somewhere, and there seems, second, the element present that the exponents execute the path motion by using their legs as they walk or run.

8.5.1.2 The decompositional conceptual structure of the 'to throng'_eventity on four levels of abstraction

8.5.1.2.1 abstraction level I: to move as the exponent

_basic eventity I: (causeless motion)_

...people shuffle like the walking dead - thousands thronging to the feeding centers hastily set up by relief agencies. (BNC)

Watch out for the jugglers, jesters and minstrels thronging through the courtyards -... (BNC)
...ran past swerving traffic and Christmas shoppers and commuters *thronging* to their stations. (BNC)
Anyone who went to the tall ships race in Belfast and saw 500,000 people *thronging* through the city center day after day could see the determination of... (BNC)
At last they reached the village and joined the rest of the crowd as they *thronged* towards the green in front of the parish church. (BNC)
As many as 2,000 people would *throng* into the water to touch her. (BNC)
Here he entertained the people who *thronged* to the river to see him, including the members of parliament, who adjourned their debate on the environment and strolled out on the balcony to view Moby’s performance just 100 meters away. (http://www.world-of-wisdom.com/04_articles/2003/08_whale.htm, accessed on October 21 2007)
The crowd that *has thronged* to the 132nd Annual Scottish Gathering and Games is a resourceful one. (http://www.sfweekly.com/1997-09-10/music/night-crawler/, accessed on October 21 2007)

The decompositional conceptual structure of ‘to throng’ on abstraction level I (*basic eventity I, causeless motion*) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation:</td>
<td><em>eventity I</em>: exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td><em>eventity I</em>: manner-component</td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

**8.5.1.2.2 abstraction level II: to move like the exponent** There are no concepts on abstraction level II, neither lexicalized nor *ad hoc* uses, because only crowds of people qualify for the *manner*-component of the 'to throng'-*eventity.*

**8.5.1.2.3 abstraction level III: hyperbole concepts** There are no concepts on abstraction level III, neither lexicalized concepts nor *ad hoc* uses, because there is no modification of the *manner*-component.
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8.5.1.2.4 abstraction level IV: metaphorical concepts. There are no lexicalized concepts on abstraction level IV and ad hoc uses were not found.

8.5.2 Nominal concept 'flock', verbal concept 'to flock'

*inventity I* and *basic eventity I*: The polysemous lexeme 'flock' is of interest here in its readings *a number of birds moving (...) together* and *a number of domestic animals, especially sheep, goats or geese that are kept together*, respectively (Concise Oxford English Dictionary OED, 2002); the polysemous lexeme 'to flock' is of interest here in its reading *(...) move in a flock*. There is noncircular definition between inventity I and basic eventity I.

**Ontology:** Within the ontological framework used here, the entity denoted by the lexeme 'flock' can be classified as inventity, more exactly as *collection*; and the entity denoted by the lexeme 'to flock' as eventity, more exactly as *activity*.

**Word formation:** noun base: 'flock'; conversion; simulative

As in the case of 'to throng', the verb 'to flock' involves only a motion component when 'path' or 'goal' is additionally coded. Among the exponent-shaped motion verbs examined in this investigation, 'to flock' is the only verb which is an exponent-shaped motion verb in the sense proposed by Talmy because 'to flock' does not constitute a manner-component. The verb 'to flock' codes only the component *exponent* and the component *motion*; there are no manner restrictions. 'To flock' refers - when the component 'path' or 'goal' is additionally coded - to *any path motion executed by a formation which is considered to be a flock*. So, 'to flock' involves only restrictions concerning the exponent.

8.5.2.1 The decompositional conceptual structure of the 'to flock'-eventity on four levels of abstraction

8.5.2.1.1 abstraction level I: to move as the exponent

*basic eventity I*: *causeless motion*
Tufted ducks have been flocking to our ponds in unusual numbers, writes James O’Hagan. (BNC)
You stand on St Saviour’s Point to see him going out between the forts, the seabirds flocking after his boat, the ropes screaming in the sheaves as the sails are hoisted. (BNC)

The decompositional conceptual structure of 'to flock' on abstraction level I
(basic eventity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory I: exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td>eventity I: any path motion executed by the exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

8.5.2.1.2 abstraction level II: to move like the exponent There are no concepts on abstraction level II, neither lexicalized nor ad hoc uses, because there is no manner-component within the 'to flock'-eventity

Here, the next level of abstraction covers motion events, involving exponents other than inventory I, namely formations of a large number of exponents of the same kind (ontologically speaking: collections) which execute a path motion. There are no manner restrictions.

basic eventity II: (causeless motion)

Well backed by the huge number of Britain racegoers who had flocked to the Arc on the first Sunday in October,...(BNC)
The series became a huge success and tourists have flocked to the area ever since. (BNC)
...as busy as an overturned ant heap in summer as boatman, sailors and fishermen flocked down to the river bank to watch the ice thaw. (BNC)
The leaders of big business flocked to Washington as Roosevelt put the priority on winning the war rather than... (BNC)
...situation worsened dramatically in the months that followed October as soldiers *flocked* home and military orders to industry abruptly halted. (BNC)

...emigrants and settlers from the land-hungry provinces of central European Russia *flocked* towards the fertile steppe and forest-steppe lands of west and south-west Siberia... (BNC)

Men *flocked* into her office. (BNC)

The pupils *flocked* out of the rooms like a flock of birds. (BNC)

Workers *flocked* to Middlesborough from all over the place;... (BNC)

Twenty thousand so-called travellers and ravers *flocked* to Castle Morton common last Bank Holiday weekend for the illegal festival. (BNC)

The voters *flocked* to the polls, despite drizzle, rain and snow, in record numbers. (BNC)

Tourists from western Europe are *flocking* to Britain in record numbers. (BNC)

Foreigners suffering poverty, but not political persecution, *have been flocking* to Germany at a rate of 400,000 – 500,000 a year. (BNC)

Frogs and reptiles gather beside the exits snapping at the insects as they *flock* out on to the ramps. (BNC)

There are really only two films the public *has flocked to* - Erin Brockovich and Gladiator - in the past year. (http://www.ink.news.com.au/mercury/mathguys/articles/2001/010324a1.htm, accessed on October 21 2007)

While everyone *was flocking* to the beach, I was in my rags making lawnmower-type strokes on the wooden floor. (http://www.shieldsgazette.com/differentworld/Phew-what-a-scorcher,2840859.jp, accessed on October 21 2007)

The decompositional conceptual structure of 'to flock' on abstraction level II (*basic eventity II, causeless motion*) is as follows:

---

*Special Note:* The text contains URLs which are not rendered here. They are presented to indicate sources or further reading. Access to these sources may be required to fully understand the context or content mentioned in the text.
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventy II:</em> exponents other than the exponent denoted by the noun base, with certain properties being readjusted in terms of <em>inventy I</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventy II:</em> any path motion executed by the exponents denoted by the subject. The circumstances and approximate values of the path motion are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td><em>inventy I:</em> the fact that a formation, namely a 'flock', is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject is present in large numbers and in a high density and the exponents involved are conceptualized as a whole. This conceptualization can be attributed to the focal adjustment <em>abstraction</em>, i.e. a higher level of schematicity is chosen. The approximate values of the element 'large numbers' and 'high density' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>only exponent present</th>
<th><em>causeless, effectless</em></th>
</tr>
</thead>
</table>

8.5.2.1.3 abstraction level III: hyperbole concepts There are no concepts on abstraction level III, neither lexicalized concepts nor *ad hoc* uses, because hyperbole concepts involve modifications of the *manner*-component and there is no *manner*-component within the 'to flock'-*eventy*.

8.5.2.1.4 abstraction level IV: metaphorical concepts Abstract concepts are interpreted in the terms *eventy I* and *eventy II*, i.e. a formation of abstract entities executes a fictive path motion.

**abstract basic motion:** (*causeless abstract motion*)

Her knees felt weak and butterflies *flocked* into her stomach as she felt the first hot flush of teenage love. (BNC)
The public viewing audience has flocked to either the 24 hour news networks or the Internet for their world view.
(http://www.memestreams.net/users/k/society/media/page3/, accessed on October 21 2007)

Advocates next plan to target the oil industry, which has flocked to Africa as an alternative to the Middle East.
(http://www.globaltreatmentaccess.org/content/press_releases/a02/12_2902_TiPic_HGAP_MNC_oil.html, accessed on October 21 2007)

The decompositional conceptual structure of 'to flock' on abstraction level IV (abstract basic eventivity, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventivity IV</em>: concrete or abstract exponent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventivity IV</em>: fictive motion event which is motivated by <em>eventivity I</em> and/or II.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

### 8.5.3 Nominal concept 'herd', verbal concept 'to herd' 

**Ineventity I and basic eventivity I**: The polysemous lexeme 'herd' is of interest here in its reading a large group of animals, especially hoofed mammals that live or are kept together (Concise Oxford English Dictionary OED, 2002); The concept to move as the exponent denoted by the noun base is not lexicalized; In the case of the 'to herd'-eventity the manner-component is identical with the causativized reading of *eventivity I*; it is explicated in 8.5.3.1. There is no circular definition between *inventivity I* and *eventivity I*.

**Ontology**: Within the ontological framework used here, the entity denoted by the lexeme 'herd' can be classified as *inventy*, more exactly as *collection*; and the entity denoted by the lexeme 'to herd' as *eventity*, more exactly as *activity*.

**Word Formation**: noun base: 'herd'; conversion; simulative
8.5.3.1 The explication of the manner-component of the 'to herd'-event

As in the cases of 'to throng' and 'to flock', the verb 'to herd' involves a motion component only when 'path' or 'goal' is additionally coded. The manner-component of the 'to herd'-event involves the herd's execution of a path motion. As far as manner elements are concerned, there is the element present that the exponents use their legs: they walk. Further, there is the element present that they are in some way forced to execute the path motion and have no will, as is the case with the animals in a herd. Here, the manner-component is, as mentioned above, identical with the causativized reading of event I.

8.5.3.2 The decompositional conceptual structure of the 'to herd'-event on four levels of abstraction

8.5.3.2.1 abstraction level I: to move as the exponent

causativized event I: (caused motion, agent-causation)

In one village a man was herding about a hundred goats down a narrow lane.

...entirely unprepared for this, thus far into their own country, and were engaged in herding the great herd of Giltsland cattle across the Dornock Water’s estuary,... (BNC)

The decompositional conceptual structure of 'to herd' on abstraction level I (causativized event I, caused motion, agent-causation)
8.5.3.2.2 abstraction level II: to move like the exponent  
formations of exponents which use their legs and walk qualify here.

causativized eventity II: (caused motion, agent-causation)

The mandroid guards had come to usher us along, herding
us to our seats. (BNC)
He had sneaked himself into the crowd of humans as the huge
woman had herded them over from the train. (BNC)
One spring afternoon last year, Daniel - a Year 6 contract
teacher at the north-side Brisbane school - was herding his
class along a path towards the music room...
(http://www.carcivilisation.com/whatis/rules/suspect.htm; accessed on
October 21 2007)
That evening O'Toole noticed that Anderson was herding the
patients into the bedrooms with some kind of weapon.
(http://www.disabilitymuseum.org/lib/docs/1754.htm?page=9, accessed
on October 21 2007)

The decompositional conceptual structure of 'to herd' on abstraction level II
(causativized eventity II, caused motion, agent-causation) is as follows:
<table>
<thead>
<tr>
<th>Grammatical Relation: Subject</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent</td>
<td><em>event 2</em>: the fact that a formation, namely ‘a herd’, is implied by means of <em>domain mapping</em> the interpretation that the exponent denoted by the subject is present in numbers ranging from at least a few up to a great many and in a high density and the exponents involved are conceptualized as a whole. This conceptualization can be attributed to the focal adjustment <em>abstraction</em>, i.e. a higher level of schematicity is chosen. The approximate values of the element ‘numbers ranging from at least a few up to a great many’ are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical Relation: Predicate</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>event 2</em>: unmodified manner-component with the values of the manner elements being readjusted</td>
<td><em>event 1</em>: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of <em>event 1</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical Relation: Object</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>goal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical Relation: Obligatory Adverbial Phrase</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent exponent and goal present</td>
<td><em>caused motion</em> (agent-causation)</td>
<td></td>
</tr>
</tbody>
</table>
8.5.3.2.3 abstraction level III: hyperbole concepts There is one modification of the manner-component on abstraction level III.

Modification I: Modification I involves the idea that a group of exponents is forced to execute a path motion. There are no further manner restrictions.

causativized entity II: (caused motion, agent-causation)

In an aquarium with lionfish they will soon exhibit their predatory technique, herding the quarry into a corner, by brandishing flared fins. (BNC)
Could it be Kurt Dussander, one of the many Nazi war criminals who herded thousands to their deaths in the concentration camps?
In the last three months, the Burundi government has herded 350000 people, mostly poor farmers, from their homes into grubby new villages atop the hills that encircle this city, the country’s capital.
(http://209.85.135.104/search?q=cache:ZkBsLtJE_cJ:query.nytimes.com/gst/fullpage.html%3Fres%3D5C05EEF1E39F934A15751C1A96F958260%26sec%3D%26spcen%3D%26pagewanted%3Dpr int+%22+government+has+herded%22&hl=en&ct=clnk&cd=2&gl=de, accessed on October 21 2007)
More than any other writer, Ms Burro’s endorsement of a low-fat, largely vegetarian diet has herded Americans into supermarket aisles featuring soy foods.
(http://www.tkb.com/jissue/11_00/soy.htm, accessed on October 21 2007)
It would be interesting, if it were possible, to conduct a survey today to see how many of those boys we herded to church are still active members of the Catholic Church.
Within a few weeks, local gendarmes had confiscated the Jews’ valuables and herded them into a ghetto.
(http://www1.yadvashem.org/remembrance/yom_hazikaron/links_Torchlighters.html, accessed on October 21 2007)

The decompositional conceptual structure of 'to herd' on abstraction level III (causativized entity III, caused motion, agent-causation) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity II</em>: modified <em>manner</em>-component</td>
<td></td>
<td>The implications concerning <em>eventity I</em> and <em>eventity II</em> are analogous to basic <em>eventity II</em>.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: object</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity III</em>: exponents other than exponent denoted by the noun base and - partly - other than the exponents which qualify for the <em>manner</em>-component, with certain properties of the exponents being readjusted in terms of <em>eventity I</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: obligatory adverbial phrase</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>goal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent exponent and goal present</td>
<td></td>
<td><em>caused motion</em> <em>(agent-causation), effectless</em></td>
</tr>
</tbody>
</table>

### 8.5.3.2.4 abstraction level IV: metaphorical concepts

Metaphorical concepts are interpreted analogous to the *manner*-component and the concepts on abstraction level II and III respectively, since a formation exponents is considered to execute a fictive forced path motion.

**abstract causativized eventity:** *(abstract effecting motion)*

...they are herding us into selecting one of a handful of "acceptable" candidates...

By combining the two they are herding us into doing what they want.

...government, and politics - all have one thing in common, they seek to herd us into thinking and believing alike in key areas critical to their agendas.
The decompositional conceptual structure of 'to herd' on abstraction level IV \textit{(abstract resultive event, abstract effecting motion)} is as follows:

<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agent</strong></td>
<td>agent</td>
<td><strong>The implications concerning event I and event I are analogous to basic event III.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>event I \textit{IV}: fictive motion event which is motivated by the manner-component and the concepts on the levels of abstraction II and III, respectively</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: object</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>event I \textit{IV}: concrete or abstract exponent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: obligatory adverbial phrase</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>goal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>exponent agent and goal present</td>
<td>caused motion \textit{(agent-causation), effectless}</td>
<td></td>
</tr>
</tbody>
</table>
8.5.4.1 The explication of the manner-component of the 'to swarm'-event

The manner-component of the 'to swarm-event' involves the element that
a formation of a large number of insects flies.

8.5.4.2 The decompositional conceptual structure of the 'to swarm'-
event on four levels of abstraction

8.5.4.2.1 abstraction level I: to move as the exponent

*basic event I: (causeless motion)*

When I drove past the lime-tree, countless glow-worms were
swarming about it.
(http://www.grimmstories.com/language.php?grimm=186&d=en&cr=de,
accessed on October 21 2007)

...flies were swarming all over my plastic cup of Coke...
(http://www.empowerment-international.squarespace.com/latest-news/,
accessed on October 21 2007)

The decompositional conceptual structure of 'to swarm' on abstraction level
I (basic event I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>subject:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td>inventory I:</td>
<td>exponent denoted</td>
</tr>
<tr>
<td></td>
<td>exponent</td>
<td>by</td>
</tr>
<tr>
<td></td>
<td>denoted by</td>
<td>the noun base</td>
</tr>
<tr>
<td>grammatical</td>
<td>event I:</td>
<td>manner-component</td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>predicate:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent</td>
<td>causeless,</td>
</tr>
<tr>
<td></td>
<td>present</td>
<td>effectless</td>
</tr>
</tbody>
</table>

*resultivized event I: (effecting motion)*

It was getting dark now and the mosquitos were swarming
me so I got into my bivy and closed the mesh.
(http://www.backcountryfoods.com/travel/ShowOneTrip.asp?ID=46,ac-
cessed on October 21 2007)
The decompositional conceptual structure of 'to swarm' on abstraction level I \textit{(resultivized eventity I, effecting motion)} is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation:</td>
<td>\textit{eventity I}: exponent denoted by the</td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td>noun base</td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td>\textit{eventity I}</td>
<td>\textit{manner-component}</td>
</tr>
<tr>
<td>predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td>affected entity</td>
<td></td>
</tr>
<tr>
<td>object</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>exponent and background present</td>
<td>\textit{caused motion}, \textit{effecting}</td>
</tr>
</tbody>
</table>

\textbf{8.5.4.2.2 abstraction level II: to move like the exponent} Formations of a large number of exponents which execute a path motion by flying qualify here.

\textit{basic eventity II: (causeless motion)}

...of Torpedo 8 Detachment were in two three plane sections, and as they flew on, Earnest estimated at least twenty-five fighters \textit{were swarming} on them.
(http://www.historyplace.com/specals/writers/twenty-five-yards.htm, accessed on October 21 2007)

Within about five minutes all of the Japs were down and our fighters \textit{were swarming} over the area.

The decompositional conceptual structure of 'to swarm' on abstraction level II \textit{(basic eventity II, causeless motion)} is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventivity II:</em> exponents other than the exponent denoted by the noun base which qualify for the <em>manner</em>-component, with certain properties of the exponent being readjusted in terms of <em>eventivity I</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventivity II:</em> unmodified <em>manner</em>-component with the values of the manner elements being readjusted</td>
<td><em>eventivity I:</em> the fact that a formation which consists of a large number of exponents, namely a ‘swarm’, is implied governs by means of <em>domain mapping</em> the interpretation that the exponents denoted by the subject are present in large numbers and in a high density and constitute a swarm-like formation. The exponents involved are conceptualized as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment <em>abstraction</em>. This is also the case when the subject position is occupied by a mass term. The approximate values of the elements ‘large numbers’, ‘high density’ and ‘swarm-like formation’ are adjusted to the domain in question by means of the focal adjustment <em>selection</em>. <em>eventivity I:</em> the fact that the <em>manner</em>-component is implied governs by means of <em>domain mapping</em> the interpretation that the exponents denoted by the subject execute path motion together by flying, and this is dynamically. The approximate values of the elements ‘to execute a path motion by flying’ and of the force-dynamics element ‘dynamically’ are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>
**resultivized eventity II:** *(effecting motion)*

She stopped and closed it again when she saw just how many fighters *were swarming* the place and how quickly they were doing it.

(http://www.webscription.net/chapters/A1416573836/1416573836__5.htm, accessed on October 21 2007)

The whole time we were talking, these Canary like birds *were swarming* a feeder outside their kitchen window.


The decompositional conceptual structure of 'to swarm' on abstraction level II *(resultivized eventity II, effecting motion)* is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity II:</em> exponent's other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of <em>eventity I</em></td>
<td></td>
<td>The implications concerning <em>eventity I</em> and <em>eventity II</em> are analogous to <em>basic eventity II.</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity II:</em> unmodified manner-component with the values of the manner elements being readjusted</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: object</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>affected entity</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>exponent and background present</td>
<td><strong>caused motion,</strong> <em>effecting</em></td>
<td></td>
</tr>
</tbody>
</table>

**abstraction level III: hyperbole concepts**

There are two modifications of the *manner*-component on abstraction level III.

**Modification I:** Modification I involves a large group of exponents executing a path motion dynamically. There are no further manner restrictions.

**basic eventity III:** *(causeless motion)*
In a very short time miners were swarming over the Black Hills.
(http://www.suite101.com/course.cfm/17638/seminar, accessed on October 21 2007)

Suddenly I looked up and the Germans were swarming down from the cliffs onto the beach.
(http://www.lancastermuseum.ca/davidson.html, accessed on October 21 2007)

The decompositional conceptual structure of 'to swarm' on abstraction level III (basic eventity III, causeless motion) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>invention III:</em> exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>event III:</em> modified manner-component</td>
<td><em>invention I:</em> the fact that a formation which consists of a large number of exponents, namely a 'swarm', is implied governs by means of domain mapping the interpretation that the exponents denoted by the subject are present in large numbers and in a high density and constitute a swarm-like formation. The exponents involved are conceptualized as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment abstraction. This is also the case when the subject position is occupied by a mass term. The approximate values of the elements 'large numbers', 'high density' and 'swarm-like formation' are adjusted to the domain in question by means of the focal adjustment selection. <em>event I:</em> the fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the exponents denoted by the subject execute a path motion together and this is dynamically. The approximate values of the element 'to execute a path motion' and of the force-dynamics element 'dynamically' are adjusted to the domain in question by means of the focal adjustment selection.</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>
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resultivized eventity III: (effecting motion)

People were swarming the areas around Salem, Centralia, Vernon, Vandalis and beyond.
(http://www.iprb.org/history.htm, accessed on October 21 2007)

The decompositional conceptual structure of 'to swarm' on abstraction level III (resultivized eventity II, effecting motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
<th>grammatical relation: object</th>
<th>valency</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td>eventity III: modified manner-component</td>
<td>affected entity</td>
<td>exponent and background present</td>
</tr>
</tbody>
</table>

| | explicit | implicit |
|-------------------------------|---------|
| The implications concerning inventory I and certain aspects of the manner-component are analogous to basic eventity of Modification I. | caused motion, effecting |

Modification II: Modification II involves a large number of exponents moving all over the place. There are no further manner restrictions except for force-dynamics restrictions.

basic eventity III: (causeless motion)

The only ants his landlord could see were a few which were swarming around a grain of rice on the kitchen platform.

Within minutes the children were swarming all over the debris as the adults gathered to take a closer look.
(http://www.rochdaleobserver.co.uk/community/rochdale_150/work/s/510/510687_public_all_fell_for_the_man_in_white.html, accessed on October 21 2007)
Long eared, food sniffing beagles and drug sensitive black Labradors were swarming all over the place.
(http://www.bigelow.org/arctic/goes05/week1.html, accessed on October 21 2007)

The decompositional conceptual structure of 'to swarm' on abstraction level III (basic eventity III, causeless motion) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>event</strong> III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td><strong>event</strong> III: modified manner-component</td>
<td></td>
</tr>
</tbody>
</table>

**event** III: the fact that a formation which consists of a large number of exponents, namely a 'swarm', is implied governs by means of domain mapping the interpretation that the exponents denoted by the subject are present in large numbers and in a high density, and the focus is on the exponents as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment abstraction. This is also the case when the subject position is occupied by a mass term. The approximate values of the elements 'large numbers' and 'high density' are adjusted to the domain in question by means of the focal adjustment selection.

**event** II: the fact that the manner-component is implied governs by means of domain mapping the interpretation that the exponents denoted by the subject move all over the place dynamically. The approximate values of the force-dynamics element 'dynamically' are adjusted to the domain in question by means of the focal adjustment selection.

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td><strong>causeless, effectless</strong></td>
<td></td>
</tr>
</tbody>
</table>
L-Subject-alternation:

Instead of having a mis-shapen frog here and there some ponds were swarming with them.

The ships were swarming with cockroaches and rats.

The eaves of the old house were swarming with honey bees.
(http://www.brickhousewines.com/chardonnay.html, accessed on October 21 2007)

The summer night sky was swarming with bugs.
(http://www.howdyhost.net/photo/insects/ , accessed on October 21 2007)

Pinnacles were swarming with life - we saw the following plus much more: male ribbon eel, juvenile ribbon eel, lizard fish, lionfish, pipefish,...
(http://www.tripadvisor.com/ShowUserReviews-g316045-d542600-r8885573-Lalat_i_Resort-Beqa_Island.html, accessed on October 21 2007)

The coal mines of France and Germany and other countries such as Belgium were swarming with these locomotives.
(http://www.aircaraccess.com/history.htm, accessed on October 21 2007)

One year ago today, the sky over Lakeland swarmed with police helicopters.
(http://www.thedeliger.com/article/20070928/NEWS/709280416/1368/MULTIME-DIA01, accessed on October 21 2007)

And between 7 September 1940, when the Nazis' aerial blitz on London began, and 11 May 1941, when it reached its bloody climax, the sky was swarming with German bombers.

By 3.30 the sky was swarming with meteors.

Multicolored balloons rose into the air - Achena's gift to Jonava' people; the sky was swarming with kites.

Caribbean reef sharks were common in almost all of our dive sites, but El Dorado and Jewfish Mountain were swarming with them.

The sunlit halls were swarming with students going in and out of classrooms.
(http://www.fanfiction.net/s/2540354/1/Unpredictable, accessed on October 21 2007)
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The coalmines of France and Germany and other countries such as Belgium were swarming with these locomotives. (http://www.aircaraccess.com/history.htm, accessed on October 21 2007)
The viewing balconies and terraces of historic Malmi airport were swarming with spectators as the Zeppelin "Yokoso! Japan arrived. (http://www.pelastamalmi.org/en/news/yokoso2.html, accessed on October 21 2007)
The Brigade was ordered to withdraw through mountains that were swarming with the enemy and the Battalion again suffered many casualties. (http://www.royalirishrangers.co.uk/rifles.html, accessed on October 21 2007)

The decompositional conceptual structure of 'to swarm' on abstraction level III (L-Subject-alternation) is as follows:

<table>
<thead>
<tr>
<th>gramatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>background location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td>entity III: modified manner-component</td>
<td>The implications concerning entity I and certain aspects of the manner-component are analogous to basic entity of Modification II.</td>
</tr>
<tr>
<td>grammatical relation: with-phrase</td>
<td>entity III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td>causeless, effectless</td>
</tr>
<tr>
<td>valency</td>
<td>exponent and background present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

resultivized entity III: (effecting motion)

People were swarming the areas around Salem, Centralia, Vernon, Vandalis and beyond. (http://www.iprb.org/history.htm, accessed on October 21 2007)

The decompositional conceptual structure of 'to swarm' on abstraction level III (resultivized entity II, effecting motion) is as follows:
\begin{tabular}{|l|l|l|}
\hline
 & explicit & implicit \\
\hline
grammatical relation: subject & inventory III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II & \\
\hline
grammatical relation: predicate & inventory III: modified manner-component & The implications concerning inventory I and inventory I are analogous to basic inventory of Modification II. \\
\hline
grammatical relation: object & affected entity & \\
\hline
valency & exponent and background present & caused motion, effecting \\
\hline
\end{tabular}

8.5.4.2.3 abstraction level IV: metaphorical concepts Metaphorical concepts are on the one hand motivated by the manner-component and/or by Modification I of the hyperbole concepts as they involve the idea that a formation consisting of a large number of abstract entities executes a fictive path motion.

abstract basic motion: (causeless abstract motion)

As we were walking, mixed feelings swarmed through my head like a mad mob of buzzing Beedril.
(http://www.thepokemontower.com/authors/kitten/whisperaway5.txt, accessed on October 21 2007)

All those feelings swarmed back and took over my immediate reality.
(http://www.ricksteves.com/graffiti/archives/magic_03.htm, accessed on October 21 2007)

Your brow ruffled with ponderings and emotions swarmed within your eye.
(http://www.fanfiction.net/s/3171321/1/Anymore, accessed on October 21 2007)

After the chaotic Presidential Election of 2000, an extreme array of emotions swarmed through the hearts and minds of Americans.
The decompositional conceptual structure of 'to swarm' on abstraction level IV (abstract basic eventity, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td>ivalency IV: abstract exponent</td>
<td>The implications concerning ivalency I and ivalency I are analogous</td>
</tr>
<tr>
<td>grammatical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td>ivalency IV: fictive motion event which is</td>
<td>to basic eventity II and basic eventity of Modification I, respectively.</td>
</tr>
<tr>
<td></td>
<td>motivated by the manner-component and by</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Modification I of the hyperbole concepts,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>respectively</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

**abstract resulitivized eventity:** (abstract effecting motion)

Emotions swarmed her as she stood there. Sarah did not know how to react, she did not expect to see them right in front of the Pearl.

(http://www.piratesrpg.pitas.com/, accessed on October 21 2007)

The decompositional conceptual structure of 'to swarm' on abstraction level IV (resultivized eventity I, abstract effecting motion) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td>ivalency IV: abstract exponent</td>
<td>The implications concerning ivalency I and ivalency I are analogous</td>
</tr>
<tr>
<td>grammatical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td>ivalency IV: fictive motion event which is</td>
<td>to basic eventity II and basic eventity of Modification I, respectively.</td>
</tr>
<tr>
<td></td>
<td>motivated by the manner-component and by</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Modification I of the hyperbole concepts,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>respectively</td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td>goal</td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>object</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>exponent and background present</td>
<td>caused motion, effecting</td>
</tr>
</tbody>
</table>
Metaphorical concepts are on the other hand motivated by Modification II of the hyperbole concepts as they involve the idea that a large number of abstract entities fictively move all over the place.

**abstract basic motion:** *(causeless abstract motion)*

Your brow ruffled with ponderings and emotions swarmed within your eye.

(http://www.fanfiction.net/s/3171321/1/Anymore, accessed on October 21 2007)

The decompositional conceptual structure of 'to swarm' on abstraction level IV *(abstract basic eventity, causeless abstract motion)* is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation:</td>
<td><em>eventity IV</em>: abstract exponent</td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td><em>eventity IV</em>: fictive motion event which is motivated by Modification II of the hyperbole concepts</td>
<td>The implications concerning <em>eventity I</em> and <em>eventity I</em> are analogous to basic eventity of Modification II.</td>
</tr>
<tr>
<td>predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

**L-Subject-alternation:**

And out of what one sees and hears and out of what one feels, who could have thought to make so many selves, so many sensuous worlds, as if the air, the mid-day air, were swarming with the metaphysical changes that occur, merely in living as and where we live.

(http://www.oreillynet.com/pub/a/oreilly/tim/articles/favebooks_07_05.html, accessed on October 21 2007)

On the opening day the streets were swarming with energy.

(http://www.flickr.com/photos/javajive/195949287/, accessed on October 21 2007)

The decompositional conceptual structure of 'to swarm' on abstraction level IV *(L-Subject-alternation)* is as follows:
8.5.5 Nominal concept 'parade', verbal concept 'to parade' 

*inventity I and basic inventity I*: The polysemous lexeme 'parade' is of interest here in its reading a *formal march or gathering of troops for inspection or display* (Concise Oxford English Dictionary, 2002), and the polysemous lexeme 'to parade' in its reading *walk, march or display in a parade* (Concise Oxford English Dictionary, 2002). There is circular definition between *inventity I* and *basic inventity I*.

**Ontology:** Within the ontological framework used here, the entity denoted by the lexeme 'parade' is ontologically hybrid; it has *inventity*-character (in terms of a *collection*) as far as the formation of people is concerned, and it has *inventity*-character (in terms of an *activity*) as far as the motion concept is concerned. The entity denoted by the lexeme 'to parade' can be classified as *inventity*, more exactly as *activity*.

**Word Formation:** noun base:'parade'; conversion; simulative

8.5.5.1 The explication of the manner-component of the 'to parade'-eventity

The *manner*-component of the 'to parade'-eventity involves a parade’s execution of a path motion. There are the manner elements present in that the exponents involved march and display officiality and military and political power.
8.5.5.2 The decompositional conceptual structure of the 'to parade'-
eventity on four levels of abstraction

8.5.5.2.1 abstraction level I: to move as the exponent

basic eventity I: (causeless motion)

Convoys of trucks carrying about 2,000 soldiers, a dozen how-
itzers and several tanks parading through the Barkhar mar-
ket, around the Jokhang temple... (BNC)

The decompositional conceptual structure of 'to parade' on abstraction level
I (basic eventity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity I: exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>manner-component</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.5.5.2.2 abstraction level II: to move like the exponent There are no concepts on abstraction level II, neither lexicalized concepts nor ad hoc uses, because only military parades qualify for the manner-component of the 'to parade'-eventity.

8.5.5.2.3 abstraction level III: hyperbole concepts There are three modifications of the manner-component on abstraction level III.

Modification I: Modification I involves formations of people parading in public and official but nonmilitary scenarios.

basic eventity III: (causeless motion)

At the universities, the released students were treated like heroes and paraded around triumphantly in scenes probably akin to 1935,... (BNC)

The teams will again parade through the city with a police escort back to the Albert Dock,... (BNC)
It was flag bedecked and in front of it a brass band *were parading* in breeches, green-Loden jackets and cocked hats.
(BNC)

The decompositional conceptual structure of 'to parade' on abstraction level III (*basic eventity III, causeless motion*) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventivity III</em>: exponents other than the exponent denoted by the noun base</td>
<td><em>inventivity I</em>: The fact that a <em>collection</em>, namely the usually large number of people who participate in parades, is implied governs by means of <em>domain mapping</em> the interpretation that the exponents denoted by the subject are present in large numbers and in a high density. The fact that a formation, namely the exponent 'parade', is implied governs by means of <em>domain mapping</em> the interpretation that the exponents denoted by the subject constitute a parade-like formation and the focus is on the formation as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment <em>abstraction</em>. The approximate values of the elements 'large numbers', 'high density' and 'parade-like formation' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td></td>
</tr>
</tbody>
</table>

| grammatical relation: predicate | *inventivity III*: modified manner-component | *inventivity I*: The fact that certain aspects of the manner-component are implied governs by means of *domain mapping* the interpretation that the exponents denoted by the subject display something and may govern the interpretation that they are dressed and walk in a way which underlines their desire to display something. The nature and approximate values of the elements 'display something' and 'be dressed and walk in a way which underlines the desire to display something' are adjusted to the domain in question by means of the focal adjustment *selection*. |

| valency | only exponent present | *causeless, effectless* |
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Modification II: Modification II involves the parading of formations of people in public, nonofficial, nonmilitary scenarios.

**basic eventity III:** (*causeless motion*)

...the demonstrators formed a line in front of the abbey and prepared to parade slowly through the streets of the historic Georgian city. (BNC)

The marchers, most of them schoolchildren, paraded peacefully through the centre of Umtata, capital of Transkei. (BNC)

The decompositional conceptual structure of 'to parade' on abstraction level III (**basic eventity III, causeless motion**) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inentity III:</em> exponents other than the exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity III:</em> modified manner-component</td>
<td></td>
<td>The implications concerning <em>inentity I</em> and certain aspects of the manner-component are analogous to <em>basic eventity</em> of Modification I.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

Modification III: Modification III involves the parading of groups of people or a single person in nonpublic, nonofficial, nonmilitary scenarios.

**basic eventity III:** (*causeless motion*)

I was often to meet these apparently carefree young men parading the streets and lanes of the city well after midnight,... (BNC)

She imagined the child Lucenzo, parading in the Piazza in his brocade coat and shiny buckle shoes one year, then... (BNC)

...women in tight skirts and high-heeled shoes decorated with silver stars parading up and down... (BNC)

A Beauty queen contestant was sacked yesterday after parading topless in front of millions of TV viewers. (BNC)
His arm aloft, he paraded through the Brighton conference hall before signaling for calm. (BNC)
All night he paraded up and down the bar like a brawny old cockerel. (BNC)
The pair celebrated the news yesterday by parading in the lavish costumes specially designed for them for Dick Whittington at... (BNC)

The decompositional conceptual structure of ‘to parade’ on abstraction level III (basic eventity III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: subject</td>
<td><em>eventity III</em>: exponents other than the exponent denoted by the noun base</td>
<td><em>eventity I</em>: The fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the exponent denoted by the subject displays something and may govern the interpretation that the exponent is dressed and walks in a way which underlines the desire to display something. The nature and approximate values of the elements ‘display something’ and ‘be dressed and walk in a way which underlines the desire to display something’ are adjusted to the domain in question by means of the focal adjustment selection.</td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td><em>eventity III</em>: modified manner-component</td>
<td><em>causeless, effectless</em></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

8.5.5.2.4 abstraction level IV: metaphorical concepts There are no lexicalized concepts on abstraction level IV which involve the aspect of motion and ad hoc uses were not found.
8.6 Rainfall, Snowfall, Hail

8.6.1 Nominal concept 'rain', verbal concept 'to rain'

*inventity I and basic eventity I*: The polysemous lexeme 'rain' is of interest here in its reading the condensed moisture of the atmosphere falling visibly in separate drops (Concise Oxford English Dictionary OED, 2002), and the polysemous lexeme 'to rain' in its reading rain falls (Concise Oxford English Dictionary OED, 2002). There is circular definition between *inventity I* and *basic eventity I*.

**Ontology:** Within the ontological framework used here, the entity denoted by the lexeme 'rain' is ontologically hybrid. It has *inventity*-character (in terms of a *collection*) as far as the involved raindrops are concerned, and it has *eventity*-character (in terms of an *activity*) as far the motion aspect is concerned. The entity denoted by the lexeme 'to rain' can be classified as eventity, more exactly as activity.

**Word Formation:** noun base: 'rain'; conversion; similitive

8.6.1.1 The explication of the *manner*-component of the 'to rain'-eventity

The *manner*-component of the 'to rain'-eventity can be explicated by the following: rain falls. In contrast to the *manner*-component of the 'to hail'-eventity and the 'to snow'-eventity, the *manner*-component of the 'to rain'-eventity is neutral with respect to force-dynamics. (In Talmy’s terms, the 'to rain'-eventity, the 'to hail'-eventity, and the 'to snow'-eventity are scenarios involving a stronger Agonist (the raindrops, the hail and the snowflakes) which overcomes a weaker Antagonist (the air)). In the case of 'to hail', the air resistance can be overcome more easily than in the case of 'to snow' because of the weight of hail and snowflakes. As far as 'to rain' is concerned, the qualification of exponents on abstraction level II does not depend on their weight: 'bombs' qualify as well as 'confetti'. On abstraction level II of the 'to rain'-eventity, exponents qualify which do not qualify for abstraction level II of the 'to hail'-eventity because they are too light, or the 'to snow'-eventity because they are too heavy.
8.6.1.2 The decompositional conceptual structure of the 'to rain'-
event

8.6.1.2.1 abstraction level I: to move as the exponent

**basic event** I: *(causeless motion, valency frame I)*

*It had rained*, the earth was soggy. (BNC)

The decompositional conceptual structure of 'to rain' on abstraction level I
*(basic event I, causeless motion, valency frame I)* is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td>0</td>
<td>causeless, effectless</td>
</tr>
<tr>
<td>grammatical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td><em>event</em> I:</td>
<td>manner-component</td>
</tr>
<tr>
<td>valency</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

**basic event** I: *(causeless motion, valency frame II)*

*I am listening to Jazz as I type, still in pajamas and the rain*
*is raining* of course.
*(http://www.awritingplace.blog.co.uk/2007/08/07/tuesday-2768874?*
*comment_ID=4291167, accessed on October 21 2007)*

So Byrnes is batting, the people are booing, the rain *is rain-
ing*, the runners on first and second are taking their leads,
no one is out, and things are...
html, accessed on October 17 2007)*

The decompositional conceptual structure of 'to rain' on abstraction level I
*(basic event I, causeless motion, valency frame II)* is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td><em>event</em> I:</td>
<td>exponent denoted by</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the noun base</td>
</tr>
<tr>
<td>grammatical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td><em>event</em> I:</td>
<td>manner-component</td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>
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basic eventity I: (causeless motion, valency frame III)

It is raining a hard rain.

The decompositional conceptual structure of 'to rain' on abstraction level I (basic eventity I, causeless motion, valency frame III) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td>eventity I: manner-component</td>
<td></td>
</tr>
<tr>
<td>object</td>
<td>eventity I: exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

8.6.1.2.2 abstraction level II: to move like the exponent Large numbers of exponents of the same kind (ontologically speaking: collections) which fall qualify here.

basic eventity II: (causeless motion, valency frame I)

The person in the back fell off the seat in the cab - it was just raining glass everywhere. (BNC)
It was raining candies! Suddenly, I woke up and found out that I had been dreaming.
Suddenly it seemed as though it was raining arrows. The other men ran as men and women on horses charged through the trees towards them.
(http://www.clehunterme.proboards29.com/index.cgi?board=Lit&action=post&thread=1144272679&quote=114874368... - 64k, accessed on December 29 2007)
Outside it was raining confetti and rice as Li and Sakura were walking down the walkway.
(http://www.animeadmirers.com/ccpages/ccfanfic4c.html, accessed on December 29 2007)
It was raining feathers. Do me a favor; next time you kill a bird, give it a chance to fall dead to the ground instead of...

It was raining bombs in those days - day after day, non stop.
(http://www.bbc.co.uk/ww2peopleswar/stories/30/a2105830.shtml, December 29 2007)

The decompositional conceptual structure of 'to rain' on abstraction level II (basic eventity II, causeless motion, valency frame I) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>event</em> <em>II</em>: unmodified manner-component with the values of the manner elements being readjusted</td>
<td><em>event</em> <em>II</em>: the fact that a <em>collection</em>, namely 'rain', is implied governs by means of <em>domain mapping</em> the interpretation that the exponent denoted by the object is present in large numbers and many small portions, respectively, and in a high density. This is also the case when the subject position is occupied by a mass term. The focus is on the exponents as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment <em>abstraction</em>. The approximate values of the elements 'large numbers' and 'high density' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td><em>event</em> <em>I</em>: the fact that the <em>manner</em>-component is implied governs by means of <em>domain mapping</em> the interpretation that the exponents denoted by the object fall. The approximate circumstances and values of the element 'to fall', e.g. the height from which the exponents fall, are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation object</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>event</em> <em>II</em>: exponents other than the exponent denoted by the noun base which qualify for the <em>manner</em>-component, with certain properties of the exponent being readjusted in terms of <em>event</em> <em>I</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>
basic eventity II: (causeless motion, valency frame II)

...had all suffered as high explosive bombs, land mines and incendiary bombs had rained down upon the city from hundreds of aircraft. (BNC)

It replaces an old incinerator which caused problems when half burnt hospital notes rained out of its chimney onto the nearby garden. (BNC)

...railway timetables would matter little if bombs were raining down. (BNC)

...were all going to hide behind and we had our helmets on in case any car parts came raining down out of the sky. (BNC)

...she had war scars inflicted on her when a bomb fell on Portland Place and debris rained down on the top deck gouging pieces out of the timbers. (BNC)

She staggered and fell, nearly blinded with the blood that rained down from a deep gash in her forehead; but raising herself with difficulty... (BNC)

The decompositional conceptual structure of ‘rain’ on abstraction level II (basic eventity II, causeless motion, valency frame II) is as follows.

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory II: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of inventory I</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

causativized eventity II: (caused motion, agent-causation)

The rough floorboards shook overhead, raining dust and splinters. (BNC)
...a coalition of anti-nuclear groups charge that Galileo's generator could rain radioactive waste all over eastern Florida if the shuttle were to explode... (BNC)
He was into the cornflakes now, raining sugar on them like a snowstorm. (BNC)
A United States helicopter gunship rained rockets and cannon fire on targets in Mogadishu early today in another attack... (BNC)
...hectares of forest and land were destroyed during the massive defoliation raids that rained 72 million liters of herbicides on southern Vietnam. (BNC)
...was interrupted for 30 minutes after lunch on 117 when a tropical summer storm rained hailstones as big as cricket balls on the pitch. (BNC)
...in 16th century Japan, bludgeoning his way to power beneath a cherry tree that rained white blossoms down on him. (BNC)

The decompositional conceptual structure of 'to rain' on abstraction level II (causatived eventity II, caused motion, agent- causation) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: predicate</td>
<td>eventity II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td>The implications concerning eventity I and eventity I are analogous to basic eventity II, valency frame I.</td>
</tr>
<tr>
<td>grammatical relation: object</td>
<td>eventity II: exponents other than the exponent denoted by noun base, which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of eventity I</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>agent and exponent present</td>
<td>caused motion, (agent-causation), effectless</td>
</tr>
</tbody>
</table>
8.6.1.2.3 abstraction level III: hyperbole concepts  There are no concepts on abstraction level III, neither lexicalized concepts nor *ad hoc* uses, because there is no modification of the *manner*-component.

8.6.1.2.4 abstraction level IV: metaphorical concepts  Metaphorical concepts conceptualize the presence of a large number of abstract entities in terms of a fictive motion event.

*abstract basic motion: (causeless abstract motion, valency frame I)*

It is *raining* instructions out there; it’s *raining* programs;

(BNC)

It *rained* congratulations about our photos last week not only from Mark and Fabke but also from the entire Initia team...


The three wrecked the rectory, it *rained* blows and kicks.


Then it *rained* blows and his opponent retaliated suitably.


As soon as the storyline of the video leaked to the press, it *rained* criticism again.

(http://www.matthewstthoughts.blogspot.com/2006_10_01_archive.html, accessed on December 29 2007)

The decompositional conceptual structure of ’to rain’ on abstraction level IV (*abstract basic eventy, causeless abstract motion, valency frame I*) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td><em>entity</em> IV: fictive motion event which is motivated by the <em>manner</em>-component</td>
<td>The implications concerning <em>entity</em> I and <em>entity IV</em> are analogous to <em>basic entity II, valency frame I</em>.</td>
</tr>
<tr>
<td>grammatical relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>object</td>
<td><em>entity</em> IV: concrete or abstract exponent</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS 377

abstract basic eventity: (causeless abstract motion, valency frame II)

Blows continued to rain on the government’s education reforms. (BNC)
On his head the twilight rained down like something palpable, as the ancient biblical ritual took place... (BNC)
And it was the penalties that rained down from here for both sides. (BNC)
Microsoft was making these moves at the same time criticism was raining down on it for the role Windows has played in permitting the propagation of viruses... (http://www.pcmag.com/article2/0,1739,1635634,00.asp, accessed on December 29 2007)

The decompositional conceptual structure of 'to rain' on abstraction level IV (abstract basic eventity, causeless abstract motion, valency frame II) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory IV: concrete or abstract exponent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity IV fictive motion event which is motivated by the manner-component</td>
<td>The implications concerning inventory I and eventity I are analogous to basic eventity II.</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valence</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

abstract causativized eventity: (caused abstract motion, agent causation)

With a sound that was half-laugh and half-sob, she began to rain kisses on his ashen face. (BNC)
...later his head was hacked from his shoulders by a flurry of coupe-coupe blows rained on him in the driving seat by the surviving coolies. (BNC)
...to hover in the air around them with a soft moan he drew her fiercely against him, raining kisses on her face, making her shiver deliciously. (BNC)
Possessed of a strength born of fear and rage, she rained blows onto him, pushing him against the lavatory door, which flew open. (BNC)
Overhead a seemingly unstoppable magician *ruined* magical doom down on them, before them an unstoppable warrior dove through... (BNC)

700 Somalis is nothing compared to the epic violence that the USA and Israel *have ruined* down on the Middle East. (http://www.danieldrezer.com/mr/KeYaHaMIAs.cgi?entry_id=3006, accessed on October 21 2007)

The decompositional conceptual structure of 'to rain' on abstraction level IV (*abstract causativized entity, caused abstract motion, agent-causation*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent</td>
<td></td>
<td>The implications concerning <em>entity I</em> and <em>entity I</em> are analogous to <em>basic entity II, valency frame I</em>.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entity IV</em>: fictive motion event which motivated by the <em>manner</em>-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: object</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entity IV</em>: concrete or abstract exponent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>agent and exponent present</td>
<td><em>caused motion</em>, <em>(agent-causation), effectless</em></td>
<td></td>
</tr>
</tbody>
</table>

8.6.2 Nominal concept 'hail', verbal concept 'to hail'

*entity I* and *basic entity I*: The polysemous lexeme 'hail' is of interest here in its reading *pellets of frozen rain falling in showers from cumulonimbus clouds* (Concise Oxford English Dictionary, 2002). The meaning of the lexeme 'to hail' is of interest in its reading *hail falls* (Concise Oxford English Dictionary, 2002). There is circular definition between *entity I* and *basic entity I*.

Ontology: Within the ontological framework used here, the entity denoted by the lexeme 'hail' is ontologically hybrid. It has *entity*-character (in terms of a *collection*) as far as the involved hailstones are concerned, and it has *event*-character (in terms of an *activity*) as far the motion aspect is concerned. The entity denoted by the lexeme 'to hail' can be classified as *entity*, more exactly as *activity*. 
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**Word Formation:** noun base: 'hail'; conversion; simulative

8.6.2.1 The explication of the manner-component of the 'to hail'-eventity

The manner-component of the 'to hail'-eventity can be explicated as follows: hail falls. In contrast to the manner-component of the 'to rain'-eventity, the manner-component of the 'to hail'-eventity involves a force-dynamics element which becomes obvious on abstraction level II, where only exponents with a certain weight qualify, i.e. the exponents must not be too light. That this is actually the case is illustrated by the unacceptability of the following sentence:

*Blossoms hailed down from the trees.*

8.6.2.2 The decompositional conceptual structure of the 'to hail'-eventity on four levels of abstraction

8.6.2.2.1 abstraction level I: to move as the exponent

**basic eventity I:** (causeless motion, valency frame I)

```
It hailed today.
(http://www.underthebluesky.com/blog/?cat=2, accessed on October 21 2007)
```

The decompositional conceptual structure of 'to hail' on abstraction level I (**basic eventity I, causeless motion, valency frame I**) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

**eventity I:** manner-component

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>eventity I:</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**valency**

<table>
<thead>
<tr>
<th>0</th>
<th>causeless, effectless</th>
</tr>
</thead>
</table>

**basic eventity I:** (causeless motion, valency frame II)

An example was not found.
**basic eventity I:** (causeless motion: valency frame III)

When I got home from school it was hail ling hail the size of golfballs and we had to get in the basement and stay there all night.


The decompositional conceptual structure of 'to hail' on abstraction level I (basic eventity I, causeless motion, valency frame III) is as follows.

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: predicate</td>
<td>eventity I: manner-component</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: object</td>
<td>eventity I: exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

8.6.2.2.2 abstraction level II: to move like the exponent

Large numbers of exponents of the same kind (ontologically speaking: collections) which fall or which are caused to fall qualify here. The fact that the 'to hail'-eventity contains a force-dynamics element excludes exponents which are too light (e.g. feathers or blossoms).

**basic eventity II:** (causeless motion, valency frame I)

It was hail ing bullets. The British broke their ranks and ran.

(http://www.nps.gov/best/forteacgers/upload/Merchants.pdf, accessed on October 21 2007)

It was hail ing arrows as the greater part of the Lusitanian Grand Army fell.


The decompositional conceptual structure of 'to hail' on abstraction level II (basic eventity II, causeless motion, valency frame I) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: predicate</td>
<td>eventity II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td>eventity I: the fact that a collection, namely 'hail', is implied governs by means of domain mapping the interpretation that the exponent denoted by the object is present in large numbers and many small portions, respectively, and in a high density. This is also the case when the object position is occupied by a mass term. The focus is on the exponents as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment abstraction. The approximate values of the elements 'large numbers' and 'high density' are adjusted to the domain in question by means of the focal adjustment selection. eventity I: the fact that the manner-component is implied governs by means of domain mapping the interpretation that the exponents denoted by the object fall. The approximate circumstances and values of the element 'to fall', e.g. the height from which the exponents fall, are adjusted to the domain in question by means of the focal adjustment selection.</td>
</tr>
<tr>
<td>grammatical relation object</td>
<td>eventity II: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of eventity I</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS  382

**basic eventity II:** *(causeless motion, valency frame II)*

A small avalanche of stones hailed down in his wake.

Arrows hailed down on the troops as they advanced.
(http://dictionary.reference.com/browse/hail, accessed on October 21 2007)

And after bombs hailed down on Baghdad in the spring of 2003, shutterbugs recorded the destruction of buildings, human bodies and ancient artifacts...
(http://www.nysun.com/article/42926, accessed on October 21 2007)

Navajo Code Talkers attached to the 2nd and 4th Marine Divisions were on the beach as Japanese fire hailed down on them.
(http://www.thenavajocodetalkers.com/islands_saipan.htm, accessed on October 21 2007)

The decompositional conceptual structure of 'to hail' on abstraction level II *(basic eventity II, causeless motion, valency frame II)* is as follows.

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity II:</em> exponents other than the exponent denoted by the noun base which qualify for the <em>manner</em>-component, with certain properties of the exponent being readjusted in terms of <em>eventity I</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity II:</em> unmodified <em>manner</em>-component with the values of the manner elements being readjusted</td>
<td></td>
<td>The implications concerning <em>eventity I</em> and <em>eventity II</em> are analogous to <em>basic eventity II, valency frame I</em>.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

**causativized eventity II:** *(caused motion, agent-causation)*

From above the Trojans hailed great stones;...

A few days before Nato bombs hailed down on Serbia, I crossed the Sava River and drove towards New Belgrade.
(http://news.bbc.co.uk/1/hi/world/europe/328894.stm, accessed on October 21 2007)
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The decompositional conceptual structure of 'to hail' on abstraction level II
(causeativized entity II, caused motion, agent-causation) is as follows:

<table>
<thead>
<tr>
<th>grammatical</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>relation: subject</td>
<td>agent</td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td>event II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td>The implications concerning entity I and event II are analogous to basic event II, valency frame I.</td>
</tr>
<tr>
<td>relation: predicate</td>
<td>event II: exponents other than exponent denoted by noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of entity I</td>
<td></td>
</tr>
<tr>
<td>relation: object</td>
<td>agent and exponent present</td>
<td>caused motion, (agent-causation), effectless</td>
</tr>
<tr>
<td>valency</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.6.2.2.3 abstraction level III: hyperbole concepts There are no concepts on abstraction level III, neither lexicalized concepts nor ad hoc uses, because there is no modification of the manner-component.

8.6.2.2.4 abstraction level IV: metaphorical concepts Metaphorical concepts involve the idea that large numbers of abstract entities of the same kind (ontologically speaking: collections) fictively fall.

abstract basic event II: (causeless abstract motion, valency frame I)

Then they were threatened and beaten as if it was hail ing blows!
(http://www.unafavolaperprotesta.com/englishfables.htm, accessed on December 29 2007)

The decompositional conceptual structure of 'to hail' on abstraction level IV (abstract basic event II, causeless abstract motion, valency frame I) is as follows.
<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event IV: fictive motion event which is motivated by the manner-component</td>
<td></td>
<td><em>event</em> IV: the fact that a <em>collection</em>, namely 'hail', is implied governs by means of <em>domain mapping</em> the interpretation that the concrete or abstract exponents denoted by the object are present in large numbers and many small portions, respectively, and in a high density. This is also the case when the object position is occupied by a mass term. The focus is on the exponents as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment <em>abstraction</em>. The approximate values of the elements 'large numbers' and 'high density' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>. The force-dynamics element of hailstones, due to their weight coming down with force, seems to govern a negative evaluation of the exponent. The nature and the approximate values of the element 'negative evaluation' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: object</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>event</em> IV: concrete or abstract exponent</td>
<td></td>
<td><em>causeless motion</em>, <em>effectless</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only exponent present</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**abstract basic eventity:** (causeless abstract motion, valency frame II)

Finally she was lying on the ground as the blows hailed over her, trying to cover her face.
(http://home.ainline.no/~kcnutlus/autumn11.htm, accessed on October 21 2007)

Condemnations hailed down on them.
(http://dictionary.reference.com/browse/hail, accessed on October 21 2007)

Troubles like earthquakes and wars hailed down on Dongpo Pavilion,...
(http://www.travelchinaguide.com/attraction/guangxi/beihai/dongpo.htm, accessed on October 21 2007)

Defeats hailed down on the Romans by the hand of the Muslims, who fought them in most of Bilad Al Sham.
(http://www.english.wa3ad.org/index.php?show=news&article=article &id=489, accessed on October 21 2007)

Disagreeable words hailed down on Marie.
(http://www.geocities.com/hypermedia_joyce/downing2.html, accessed on October 21 2007)

The decompositional conceptual structure of 'to hail' on abstraction level IV (abstract basic eventity, causeless abstract motion, valency frame II) is as follows:

<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>eventity IV:</strong> concrete or abstract exponent.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>eventity IV:</strong> fictive motion event which is motivated by the manner-component</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The implications concerning eventity I and eventity I are analogous to basic eventity IV, valency frame I.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

**abstract causativized eventity:** (caused abstract motion, agent-causation)

Ali Abdul hesitated with his card over the slot. Twice before it had devoured his card and refused to give it back, ignoring him as he hailed curses upon it.
(http://www.web.ncl.ca/be904/4tn.txt, accessed on October 21 2007)

He crossed the road and a car missed him by inches. He hailed curses down on the driver.
The decompositional conceptual structure of 'to hail' on abstraction level IV
(*abstract causalized eventivity, caused abstract motion, agent-causation*) is
as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation:</td>
<td>agent</td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td><em>eventivity IV</em>: fictive</td>
<td>The implications concerning <em>eventivity I</em> and <em>eventivity IV</em> are</td>
</tr>
<tr>
<td>predicate</td>
<td>motion event which is</td>
<td>analogous to <em>basic eventivity IV</em>, valency frame I.</td>
</tr>
<tr>
<td></td>
<td>motivated by the manner-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>component</td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td><em>eventivity IV</em>: concrete</td>
<td></td>
</tr>
<tr>
<td>object</td>
<td>or abstract exponent</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>agent and exponent</td>
<td><em>caused motion</em></td>
</tr>
<tr>
<td></td>
<td>present</td>
<td><em>(agent-causation),</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>effectless</em></td>
</tr>
</tbody>
</table>

8.6.3 Nominal concept 'snow', verbal concept 'to snow'

*eventivity I* and *basic eventivity I*: The polysemous lexeme 'snow' is of interest here in its reading *atmospheric water vapor frozen into ice crystals and falling in light white flakes (...)* (Concise Oxford English Dictionary OED, 2002); the meaning of the lexeme 'to snow' is *snow falls* (Concise Oxford English Dictionary OED, 2002). There is circular definition between *eventivity I* and *basic eventivity I*.

**Ontology:** Despite the fact that the nominal and the verbal concept imply each other, the concept denoted by the noun is ontologically not hybrid. Thus, within the ontological framework used here, the entity denoted by the lexeme 'snow' can be classified as *eventity*, more exactly as *collection*; and the entity denoted by the lexeme 'to snow' as *eventity*, more exactly as *activity*.

**Word Formation:** noun base: 'snow'; conversion; simulative
8.6.3.1 The explication of the manner-component of the 'to snow'-eventity

The manner-component of the 'to snow'-eventity can be explicated as follows: snow falls. The 'to snow'-eventity involves a force-dynamics element which becomes obvious on abstraction level II, where only exponents with a certain weight qualify, i.e. the exponents must not be too heavy. That this is actually the case is illustrated by the unacceptability of the following sentence:

*Coins were snowing on the stage.

8.6.3.2 The decompositional conceptual structure of the 'to snow'-eventity on four levels of abstraction

8.6.3.2.1 abstraction level I: to move as the exponent

**basic eventity I**: (causeless motion, valency frame I)

He said well you’ve been right since Christmas and if you say it’s not going to snow, it’s not going to snow. (BNC)

Well, I personally think it’s too cold to snow tonight. (BNC)

The decompositional conceptual structure of 'to snow' on abstraction level I (**basic eventity I, causeless motion, valency frame I**) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td>eventity I:</td>
<td>manner-component</td>
</tr>
<tr>
<td>valency</td>
<td>0</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

**basic eventity I**: (causeless motion, valency frame II)

An example was not found.

**basic eventity I**: (causeless motion, valency frame III)

An example was not found.
8.6.3.2.2 abstraction level II: to move like the exponent Large numbers of exponents of the same kind (ontologically speaking: collections) which fall qualify here. The fact that the 'to snow'-eventity contains force-dynamics elements excludes exponents which are too heavy.

**basic eventity II: (causeless motion, valency frame I)**

It was snowing confetti in Weatherfield and the Dales while Walford was flooded with tears.

Though it was snowing ash and debris, the building emptied and staffers ran down to the Staten Island Ferry to escape the island or moved north to safety.
(http://www.episcopalchurch.org/3577_20812_ENG_HTM.htm, accessed on October 21 2007)

The decompositional conceptual structure of 'to snow' on abstraction level II (*basic eventity II, causeless motion, valency frame I*) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory II: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of inventory I</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

inventory I: the fact that a collection, namely 'snow', is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject is present in large numbers and many small portions, respectively, and in a high density. This is also the case when the subject position is occupied by a mass term. The focus is on the exponents as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment abstraction. The approximate values of the elements 'large numbers' and 'high density' are adjusted to the domain in question by means of the focal adjustment selection.

inventory I: the fact that the manner-component is implied governs by means of domain mapping the interpretation that the exponents denoted by the object fall. The approximate circumstances and values of element 'to fall', e.g. the height from which the exponents fall, are adjusted to the domain in question by means of the focal adjustment selection.

valency | only exponent present | causeless, effectless |
**CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS**

**basic eventity II: (causeless motion, valency frame III)**

My love, I’ll be waiting for that rare moment when rose petals are snowing.
(http://www.anifiles.com/hosted/ladycosmos/stories/snowing.txt, accessed on October 21 2007)

Turning around to see the room filled with glittering confetti pieces snowing down upon us was a beautiful sight.
(http://www.tmbg.org/discussion/mail/list/archive/1997/Digest.3-327, accessed on October 21 2007)

Huge quantities of volcanic ash snowed down on the village about 590 A.D.

As little snips of fabric snowed down on me and I listened -unobserved - to the stories told by the women in my family, I suddenly realized that’s all I wanted to do with my life: to tell stories.
(http://www.barnesandnoble.com/writers/writerdetails.asp?cid=1068601. accessed on October 21 2007)

The spear bounced off the bell the pious man wore around his neck, and its feathers snowed down on the naked king.
(http://www.gabrielhealiotth.com/Texte/books_en.html, accessed on October 21 2007)

The decompositional conceptual structure of 'to snow' on abstraction level II (**basic eventity II, causeless motion, valency frame III**) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>The implications concerning eventity I and eventity I are analogous to <strong>basic eventity II, valency frame I</strong>.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity I: unmodified manner-component with the values of the manner elements being readjusted</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: object</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity II: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of eventity I</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS  391

causativized eventity II: (caused motion, agent causation)

An example was not found.

8.6.3.2.3 abstraction level III: hyperbole concepts  There are no concepts on abstraction level III, neither lexicalized concepts nor ad hoc uses, because there is no modification of the manner-component.

8.6.3.2.4 abstraction level IV: metaphorical concept  There are no lexicalized concepts on abstraction level IV and ad hoc examples were not found.

8.6.4 Nominal concept 'sleet', verbal concept 'to sleet'

inventory I and basic eventity I: The polysemous lexeme 'sleet' is of interest here in its reading rain containing some ice or snow, melting as it falls (Concise Oxford English Dictionary OED, 2002); the meaning of 'to sleet' is sleet falls (Concise Oxford English Dictionary OED, 2002). There is circular definition between inventory I and basic eventity I.

Ontology: Within the ontological framework used here, the entity denoted by the lexeme 'sleet' is ontologically hybrid. It has inventory-character (in terms of a collection) as far as the 'sleet' is concerned, and it has eventity-character (in terms of an activity) as far as the motion aspect is concerned. The entity denoted by the lexeme 'to sleet' can be classified as eventity, more exactly as activity.

Word Formation: noun base: 'sleet'; conversion; similitive

8.6.4.1 The explication of the manner-component of the 'to sleet'-eventity

The manner-component of the 'to sleet'-eventity can be explicated by the following: sleet falls.

8.6.4.2 The decompositional conceptual structure of the 'to sleet'-eventity on four levels of abstraction

8.6.4.2.1 abstraction level I: to move as the exponent
CHAPTER 8. ENGLISH EXPONENT-SHAPED MOTION VERBS  392

**basic eventity I**: (causeless motion, valency frame I)

It was *sleeting* so hard we could barely see for 30 yards.  
(BNC)

It *sleeted* and rained incessantly. (BNC)

The decompositional conceptual structure of 'to sleet' on abstraction level I
(basic eventity I, causeless motion, valency frame I) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td><em>eventity I:</em> manner-component</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>0</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

**basic eventity I**: (causeless motion, valency frame II)

An example was not found.

**basic eventity I**: (causeless motion, valency frame III)

An example was not found.

8.6.4.2.2 abstraction II: to move like the exponent  There are no concepts on abstraction level II, neither lexicalized concepts nor *ad hoc* uses, because only 'sleet' qualifies for the manner-component of the 'to sleet'-eventity.

8.6.4.2.3 abstraction level III: hyperbole concepts  There are no concepts on abstraction level III, neither lexicalized concepts nor *ad hoc* uses, because there is no modification of the manner-component.

8.6.4.2.4 abstraction level IV: metaphorical concepts  There are no lexicalized concepts on abstraction level IV and *ad hoc* uses were not found.
Chapter 9

French Exponent-Shaped Motion Verbs

9.1 Moved Objects

9.1.1 Nominal concept 'balance', verbal concept 'balancer'

*inventity I and basic eventity I*: The polysemous lexeme 'balance' is here relevant in its reading *instrument qui sert à peser, formé d'une tige mobile (fliou) à laquelle sont suspendus des plateaux dont l'un porte la chose à peser, l'autre les poids marqués* (Le Robert Micro, 1998). The concept to move as the exponent denoted by the noun base is not lexicalized; it is explicated in 9.1.1.1. There is noncircular definition between *inventity I* and *basic eventity I*.

*Etymology*: The lexeme 'balance' was borrowed from Vulgar Latin (*bilancia*) at the end of the twelfth century. The Vulgar Latin word *bilancia*, which denoted a *balance à deux plateaux*, goes back to the spoken Latin word *bilanx* (fourth century). The lexeme 'bilanx' is formed from a combination of *bis (deux fois)* and *lunx (plateau, en particulier plateau de balance)*. The lexeme 'bilanx' replaced the classical word *libra*. Up to the eleventh century the lexeme 'balance' denoted only *one* scale pan; the plural 'balances' denoted the scale as a whole. The denominal verb 'balancer' (first attested in 1165) denoted in its transitive reading *faire mouvoir de côté et d'autre*; in its intransitive reading and in its
form *se balancer* (first attested in 1573), it denoted *mouvoir de côté et d’autre.*

**Ontology:** Within the ontological framework used here, the entity denoted by the lexeme 'balance' can be classified as *eventity*, more exactly as *absolute individual* (the same holds for the scale pans, whose movements are the source of motivation for the derivation of the verb); the entity denoted by the lexeme 'balancer' can be classified as *eventity*, more exactly as *activity*.

**Word Formation:** noun base: 'balance'; verbal suffix: -er; conversion; similative

9.1.1.1 The explication of the *manner*-component of the 'balancer'-*eventity*

The *manner*-component lies in the alternating up-and-down movement of the scale pans.

9.1.1.2 The decompositional conceptual structure of the 'balancer'-*eventity* on four levels of abstraction

9.1.1.2.1 abstraction level I: to move as the exponent

*basic eventity I: (causeless motion)*

Quelques unes des balances au haut des élévateurs furent délogées de leurs pivots et sont tombées du côté sud, d’autres ont balancé d’un côté d’autre.


The decompositional conceptual structure of 'balancer' on abstraction level I (*basic eventity I, causeless motion*) is as follows:

<table>
<thead>
<tr>
<th>Grammatical Relation</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject</td>
<td><em>eventity I</em>: exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td><em>manner</em>-component</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>
9.1.1.2.2 abstraction level II: to move like the exponent There are no lexicalized concepts on abstraction level II and ad hoc uses were not found.

9.1.1.2.3 abstraction level III: hyperbole concepts There are three modifications of the manner-component on abstraction level III.

Modification I: Modification I involves an exponent’s oscillating movement, which describes a concave, arc-shaped path around its center of gravity. The exponent is - ontologically speaking - in all the cases an absolute individual.

basic eventity III: (causeless motion)

...le berceau balance dans leurs douces prières (FRANTEXT)
...la rose: le vrai type de la beauté est une rose qui, toute humide de la rosée du matin, ou chargée des grosses gouttes de la pluie d’été se balance au bout de sa longue tige, lorsque le zéphir de son souffle amoureux la berce mollement. (FRANTEXT)
Le blanc muguet, se balançait dans le vent. Le ciel riait, l’oiseau chantait comme avant.
(http://www.fmusique.ru/texts/g/gignac_fernand/tendrement.htm, accessed on October 21 2007)
...sans que l’agriculture s’en mêle, son tronc s’enflle et se durecit, sa taille s’élève, ses vastes rameaux se balancent dans l’air. (FRANTEXT)

The decompositional conceptual structure of ’balancer’ on abstraction level III (basic eventity III, causeless motion) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>eventivity III:</strong> exponents other than the exponent denoted by the noun base</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>eventivity III:</strong> modified manner-component</td>
<td></td>
</tr>
<tr>
<td><strong>eventivity I:</strong> The fact that certain aspect of the manner-component are implied governs by means of domain mapping the interpretation that the frequency of the oscillating movement is moderate and remains approximately and that the changes of direction are smooth. The approximate values of the element ‘moderate, regular frequency’, and the force-dynamics element ‘smooth changes of direction’ are adjusted to the domain in question by means of the focal adjustment selection.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td><strong>causeless, effectless</strong></td>
</tr>
</tbody>
</table>

**causativized eventivity III:** *(caused motion, agent-causation)*

Un bonheur répand un suave parfum sur notre vie, comme le chêvrefeuille embaume l’air qui l’entoure et le vent qui le balance en passant. *(FRANTEXT)*

Le soleil scintillait tendrement, le vent *balançait* les peupliers, les berçait.

The decompositional conceptual structure of ‘balancer’ on abstraction level III *(causativized eventivity III, caused motion, agent-causation)* is as follows:
Modification II: Modification II describes a motion event in which an exponent, which is hung up and moves freely, swings to and fro.

**basic event III:** (causeless motion)

Les cloches *se balancèrent* mais aucun tintement ne se fit entendre.
(http://www.members.aol.com/heurte/4dis.htm, accessed on October 21 2007)

Ils libérèrent les singes royaux qui *se balancèrent* au lustre de la grande salle en se lançant la couronne d’Arthur.
(http://www.ac-grenoble.fr/telepole/veissant/arthur/page5.html, accessed on October 21 2007)

Les onze pendus *se balancèrent* au bout de leur corde jusqu’à la tombée de la nuit...
(http://www2.ac-toulouse.fr/piquecos/pages/romancm1/ferrerpendu.htm, accessed on October 21 2007)

...des pendants de corail *se balançaient* à ses oreilles. (FRANTEXT)

...les saints hymnes dormaient sur les harpes de *Dieu, les foyers odorants que l’encensoir balance s’éteignaient. (FRANTEXT)

Rien n’y manquait, pas même la corde qui *se balançait* gracieusement au-dessous de la traverse. (FRANTEXT)
The decompositional conceptual structure of 'balancer' on abstraction level III (basic eventity III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
<th>valency</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entity III:</em> exponents other than the exponent denoted by the noun base</td>
<td><em>entity III:</em> modified manner-component</td>
<td><em>entity III:</em> only exponent present</td>
</tr>
</tbody>
</table>

*causativized eventity III:* (caused motion, agent-causation)

> Pendant que leurs camarades guettaient les angles des rues, deux de ceux qui étaient à pied prirent le corps mort, le balancèrent deux ou trois fois avec force, et le lancèrent au milieu du *Tibre*. (FRANTEXT)

> Devant la fenêtre ouverte, le souffle du vent balançait doucement les rideaux.

> Le vent balançait la cabine.

The decompositional conceptual structure of 'balancer' on abstraction level III (causativized eventity III, caused motion, agent-causation) is as follows:


\begin{table}
\begin{tabular}{|l|l|l|}
\hline
& explicit & implicit \\
\hline grammatical relation: subject & agent & \multicolumn{1}{l|}{event III: modified manner-component} \\
\hline grammatical relation: predicate & \multicolumn{1}{l|}{event III: modified manner-component} & The implications concerning certain aspects of the manner-component are analogous to basic event of Modification I. \\
\hline grammatical relation: object & \multicolumn{1}{l|}{event III: exponents other than exponent denoted by noun base} & caused motion (agent-causation), effectless \\
\hline valency & agent and exponent present & \multicolumn{1}{l|}{causeless, effectless} \\
\hline
\end{tabular}
\end{table}

Modification III: Modification III involves an exponent’s oscillating movement which describes a convex, arc-shaped path that is not around the exponent’s center of gravity. The exponent is - ontologically speaking - in all the cases an absolute individual.

\textit{basic event III: (causeless motion)}

\ldots sans que l’agriculture s’en mêle, son tronc s’enfle et se durecit, sa taille s’élève, ses vastes rameaux se balancent dans l’air. (FRANTEXT)

The decompositional conceptual structure of ‘balancer’ on abstraction level III (basic event III, causeless motion) is as follows:

\begin{table}
\begin{tabular}{|l|l|l|}
\hline
& explicit & implicit \\
\hline grammatical relation: subject & \multicolumn{1}{l|}{event III: exponents other than the exponent denoted by the noun base} & \multicolumn{1}{l|}{causeless, effectless} \\
\hline grammatical relation: predicate & \multicolumn{1}{l|}{event III: modified manner-component} & \multicolumn{1}{l|}{causeless, effectless} \\
\hline valency & only exponent present & \multicolumn{1}{l|}{causeless, effectless} \\
\hline
\end{tabular}
\end{table}
causativized eventity III: (caused motion, agent-causation)

Faut dire que j’avais en tête la vidéo de Michael Jackson qui balance son bébé au-dessus d’un balcon.
Aujourd’hui on médicalise la grossesse et la naissance, ensuite on balance l’enfant dans la crèche..

The decompositional conceptual structure of 'balancer' on abstraction level III (causativized eventity III, caused motion, agent-causation) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>gramatical relation: predicate</td>
<td>eventity III: modified manner-component</td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic eventity of Modification I.</td>
</tr>
<tr>
<td>grammatical relation: object</td>
<td>inventory III: exponents other than exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>agent and exponent present</td>
<td>caused motion (agent-causation), effortless</td>
</tr>
</tbody>
</table>

9.1.1.2.4 abstraction level IV: metaphorical concepts: Metaphorical concepts involve the idea that a concrete or abstract entity fictively oscillates between two poles. As the metaphorical concepts are based on a fictive to-and-fro-movement rather than on a fictive up-and-down-movement, the metaphorical concepts are motivated by the hyperbole concepts rather than the manner-component.

abstract basic eventity: (causeless abstract motion)
CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS

\[ \text{J'ai balancé longtemps, j'ai été longtemps indécis si j'irais lui découvrir ma volonté tardive, et lui dire: - *Flava, je suis prêt enfin, lève-toi, viens et tuons-nous. (FRANTEXT)} \]

De sanglant et à pre critque, de moqueur comique, il devint poète en quelques phrases finales qui se balancèrent ma-

jestueusement comme un encensoir...

(http://www.ancilla.unice.fr/~brunet/balzac/m/M14033.htm, accessed on October 21 2007)

Longtemps, en effet, les études sur le cinéma ont balancé en-

tre deux extrêmes...

(http://www.imageandnarrative.be/issue08/janbaetens_debaeque.htm, accessed on October 21 2007)

Marie, à quinze ans, traversait une période de doute exis-

tentiel et balançait entre un anticléricalisme hargneux et un

athéisme prudent.

(http://www.chiennesdegarde.org/article.php3?id_article=336, accessed on October 21 2007)

Comme tout être humain, il balançait entre force et faiblesse.

(http://www.lyoba.ch/shop/butignot/index.html, accessed on October 21 2007)

Très chère et très honorée mère, j'ai balancé longtemps à

vous ouvrir mon cœur plein d’amertume et le douleur;

(http://www.perso.orange.fr/dboudin/zEtudes/Grimm/06/1765_07_Juil.html, accessed on October 21 2007)

The decompositional conceptual structure of 'balancer' on abstraction level

IV (abstract basic eventity, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory IV: concrete or abstract exponent</td>
<td></td>
<td>The implications concerning certain aspects of the manner-component are analogs to basic eventity of Modification I.</td>
</tr>
</tbody>
</table>

| grammatical relation: predicate | | causeless, effectless |
|--------------------------------|---------------------------------|
| eventity IV: fictive motion event which is motivated by the hyperbole concepts | | |

| valency | only exponent present | |
CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS  402

9.2  Animals

9.2.1  Nominal concept 'fourmi', verbal concept 'fourmiller'

inventity I and basic eventity I: The polysemous lexeme 'fourmi' is here relevant in its reading petit insecte hyménoptère qui vit en colonies nombreuses dans des fourmilières (Le Robert Micro, 1998). The concept to move as the exponent denoted by the noun base is not lexicalized; it is explicated in 9.2.1.1. There is noncircular definition between inventity I and basic eventity I.

Ontology: Although the classification of the entity denoted by the lexeme 'fourmi' as inventity, more precisely as absolute individual, is correct, this classification is not the right choice here because the manner-component is not established by the way a single ant moves. As the manner-component is based on the overall impression of many ants moving and the appearance of ants as a formation is the starting point, 'fourmi' should be dealt with as the group of exponents Formations II, which ontologically can be classified as inventity-dividuals-collection. The entity denoted by the lexeme 'fourmiller' can be classified as eventity, more exactly as activity.

Word Formation: noun base: fourmi; verbal suffix: -iller; conversion; simulative

9.2.1.1  The explication of the manner-component of the 'fourmiller'-eventity

The explication of the manner-component involves Dowty's concept of dynamic texture (Dowty, 2000), which will be presented below.

9.2.1.1.1  The concept 'texture'  In his publication The Semantic Asymmetry of 'Argument Alternations' (and Why it Matters), Dowty deals with the semantic asymmetry of pairs of sentences which show an Agent-Subject-to-Location-Subject Alternation, e.g.
Bees *swarm* in the garden. Music *resounded* in the hall.
The garden swarms with bees. The hall resounded with music.

Snails are crawling in the garden. Fireflies glowed in the field.
The garden is crawling with snails. The field glowed with fireflies.

Fish abound in the pond. Garlic reeked on his breath.
The pond abounds with fish. His breath reeked with garlic.

In each of the examples, the first sentence shows an *Agent-Subject Construction* and the second sentence a *Location-Subject Construction*. This construction, which Dowty also calls ’*swarm-with alternation’*, is only possible with intransitive verbs and must be distinguished from the *spray-load alternation*, which is possible only with transitive verbs.

*Mary sprayed paint on the wall.*
*Mary sprayed the wall with paint.*
*Mary loaded hay onto the truck.*
*Mary loaded the truck with hay.*

First, Dowty examines the properties of the verbs which allow the *Agent-Subject-to-Location Subject Alternation*.

**Observation 1:** *Verbs appearing in the Locative-Subject Form are almost exclusively of five semantic classes of intransitive verbs that are all process (“activity”) or stative in *aktsionsart* (Dowty, 2000:1).*
CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS

Small local movements, typically occurring repetitively:
crawl, drip, bubble, dance, dribble, erupt, flow, flutter, gush, heave, hop, jump, pulsate, quiver, ripple, roil, rumble, run, shake, shiver, swarm, sway, swim, throb, tremble, vibrate

Animal sounds and other simple sounds, often repetitively:
buzz, cackle, chatter, chirp, crackle, creak, echo, fizz, hiss, hum, jingle, murmur, rustle; resonate, resound, twitter, whistle; (Salkoff’s corpus has about 200)

Kinds of light emissions:
beam, blaze, brighten, flame, glow, flicker, flare up, flash, glimmer, glitter, light up, shimmer

Smells and Tastes:
Verbs indicating degree of occupancy/abundance:
abound, teem (?); be rich, rife, rampant (with)

The examples mentioned below show verbs which are transitive and which refer to an activity but do not allow the Agent-Subject-to-Location Subject Alternation because they do not fulfill the above-mentioned semantic criteria.

*The field grazed with cattle.
*The floor squatted with boys.
*The road marched with soldiers.
*The whole library studied with busy students.
*The gymnasium exercised with energetic athletes.

As far as motion verbs are concerned, there is the additional condition that they must be manner-of-motion verbs to qualify for the Agent-Subject-to-Location-Subject Alternation, which is illustrated by the following examples:

*The sky flew with birds.
*The forest ran with deer.
*The pond swam with fish.

Observation 2 presents another characteristic feature of Location Subjects, which was first observed by Anderson (Anderson 1971).

**Observation 2:** The L-subject form seems to entail that the activity in question "fills" the entire Location to a greater extent than the A-subject form. (Dowty, 2000:2)
CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS  405

The fact that in each case the example given in b) is unacceptable shows the relevance of Anderson's criterion.

a. Bees are swarming in the garden, but most of the garden has no bees in it.
 b. # The garden is swarming with bees, but most of the garden has no bees in it.

a. Ants are crawling on the table, but they're confined to this one corner of it.
 b. # The table is crawling with ants, but they're confined to this one corner of it.

Another characteristic feature concerns the with-phrase. Dowty states:

Observation 3: Location-subject forms sound natural only when the with-phrase is an indefinite plural or mass term, but not a singular NP (Dowty, 2000:3).

  a. The wall crawled with roaches.
      *The wall crawled with a roach.
      (cf. A roach crawled on the wall.)
  b. The bottle buzzed with flies.
      *The bottle buzzed with the big fly.
  c. The city square tinkled (resounded, etc.) with the sound of many bells (on the horses and carts).
      ?The square rang with the sound of a bell in the tower striking 1 A.M.
  d. The sky blazed with lights/stars/bonfires/flashbulbs.
      *The sky flashed with a bright flashbulb/bonfire.

When the with-phrase is an NP containing a number it is only acceptable when it is an estimated number.

   a. The table crawled with a hundred cockroaches.
   b. ?The table crawled with seventy-three cockroaches.

With-phrases containing a quantification are also unacceptable.

   a. No cockroaches were crawling on the table.
      Each cockroach was crawling on the table.
      Most cockroaches were crawling on the table.
      *The table was crawling with no cockroaches.
      (cf. The table wasn't crawling with cockroaches.)
      *The table was crawling with each cockroach.
      *The table was crawling with most cockroaches.

The with-phrase can be a singular NP when the entity denoted by the with-phrase is implicitly interpreted as occurring repetitively.
CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS

a. The whole school buzzed with the rumor about the librarian dating the principal.
b. The square rang throughout the night with the sound of a bell in the tower tolling for the lost seaman.

The interpretation of the buzzing in the above-mentioned examples involves the idea that the repetitive telling of the rumor is performed by different individuals. Thus, the restriction concerning the with-phrase given in Observation 3 must be understood as a semantic-pragmatic restriction.

Observation 3 must be reformulated as follows:

Observation 3 (revised): L-Subject forms are acceptable only when the nature of verb and with-phrase permit the interpretation that an indefinite number of distinct events take place involving the with-phrase denotation (Dowty, 2000:4).

The next characteristic feature concerning motion verbs deals with two levels of metaphorical abstraction, the hyperbole level and the metaphorical level.

**Literal:**

  a. Graceful couples danced on the floor.

**Hyperbole:**

  b. *The floor danced with graceful couples.

  *Fireflies danced in the garden.

**Metaphor:**

  c. Visions of success danced in his head.

  *His head danced with visions of success.

Here only hyperbole and metaphorical uses of the verb to dance are acceptable in an L-Subject construction.

In the examples given below, the L-Subject construction is only acceptable in metaphorical and hyperbole uses of the verb 'to drip'.

**Literal:**

  a. Water dripped from the roof.

**Hyperbole:**

  b. *The roof dripped with water.

  *Sweat dripped from his face.

**Metaphor:**

  c. *Sarcasm dripped from her voice.

  *Her voice dripped with sarcasm.

This observation leads Dowty to the fourth characteristic feature. (Observation 4 has been skipped)

Observation 5: More abstract senses (hyperbolic or metaphorical) tend to be found more often in L-Subject form than A-Subject form, especially in literary writing in English, where the L-Subject form is highly productive. There are certain verbs (or V + N combinations) that are natural and even familiar as L-sentences which would be quite bizarre as A-subject sentences (Dowty, 2000:4).
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Constructions which are an equivalent to the English *Agent-Subject-to-Location-Subject-Alternation* exist in other Indo-European languages such as Dutch, French, Russian, and Serbo-Croatian as well as in some languages which are not Indo-European, such as Finnish and perhaps Hungarian.

Dowty states that the following is true for *L-Subject constructions* in these languages:

> In all these languages, an L-subject sentence is one in which (i) a NP denoting a location is the subject, (ii) the verb is from one of the same semantic fields described for English, (iii) the NP corresponding to the English with-NP is marked by instrumental case or by a preposition that includes instruments or means as one of its senses (e.g. French: de) (Dowty, 2000:5).

In order to analyze the *Location-Subject construction* semantically, Dowty uses a metaphor proposed by Ray Jackendoff, namely the metaphor "*L-Subject-Sentences describe the texture of a surface*"

There is the question of how far the texture metaphor can guide a linguistic analysis, and Dowty first examines the deeper structural parallels between the metaphor and the linguistic phenomenon.

The starting point is an analysis of the notion *texture*. The use of the notion *texture* first was restricted to the description of textiles. In contemporary, non-technical English, it is also possible to speak about "*the texture of snow, the texture of plowed fields*", or more abstractly about "*the texture in a musical*" or "*a poem’s texture*".

Two non-technical uses of the word *texture* can be distinguished:

**Concrete Texture**: The texture of a surface is a pattern of deviations from planarity which is distributed over (relatively small) parts of the surface and which is perceivable by touch and/or vision (often both).

**Generalized Texture**: The texture of an entity is a pattern in or on it, of a nature/material determined by the kind of entity, which is distributed over all (relevant) small parts of it, is recognized by vision or other senses, and is interpreted as a property of the whole (surface) of the object (rather than a figure or object on the surface) (Dowty, 2000:5-6).

Further, Dowty contrasts the notion *texture* with the notions *shape, size* and *profile* on one hand, and with the notions *color* and *composition* on the other hand.
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The linguistic description of the swarm-with construction is based on a lexical rule which has an ordinary intransitive verb as input and which changes syntactical valency of the verb as well as its meaning, but not its phonological shape. Verbs which can occur in A-Subject-sentences are the input to the rule and verbs which can occur in L-Subject-sentences are its output. The lexical rule is the following:

- For any verb input $\alpha$, the rule yields a new verb (or "new verbal construction") with the same phonological form as before, with a new syntactic subcategorization "$y \alpha$ with $x$" (i.e. subject and with-phrase complement), and with a new meaning, which describes the property a location $y$ has when the kind of activity denoted by the original $\alpha$ is being performed in most/all (very small) subparts of location $y$, by some instance of $x$ in each case; that is, the original property $\alpha$ is distributed throughout all small regions of $y$ (Dowty, 2000:6-7).

The concept of texture which describes the semantics of L-Subject-constructions is not a static concept describing an invariant surface structure, but a dynamic concept.

Dowty calls this hypothesis, namely that the dynamic texture of a surface is described as L-Subject-construction, The Dynamic Texture Hypothesis:

- **HYPOTHESIS:** L-subject sentences describe a situation where a kind of event is occurring simultaneously and repetitively throughout all parts of a place or space. (The events are DISTRIBUTED throughout all subregions (or surface, or space)).

- These subregions of activity are so small, numerous, and homogenous that the dominant perception they create together is a "texture of movement" in the surface as a whole. (DYNAMIC TEXTURE)

- That is, the small events and the small agents performing them may not be readily distinguishable as individuals. Rather the perception of a certain kind of movement-texture in the surface/space is MORE SALIENT than the perception of the individuals.

- Likewise, other kinds of L-subject sentences (twinkle with stars, twitter with birds) describe situations in which individual light sources or sound sources are less salient than the overall effect they produce throughout a region in other L-subject sentences.
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It turns out that many of the characteristic features mentioned at the beginning follow from this analysis. The following questions can be answered on the basis of the *dynamic texture hypothesis*.

- Why do L-subject sentences entail that all parts of the region have the activity going on in them?
  This follows directly from the 'distributivity' in the statement of the rule.

- Why are the only verbs found in the *swarm-with* construction those that refer to 'small' movements, simple light emissions, simple sounds, or smells?

  Only simple, small events can occur repeatedly throughout a surface so as to create a distinctive dynamic texture perception that is more salient than the agents individually or events individually. Cf. *The table crawled with ants* vs. *The field grazed with cattle; echo with voices* vs. *harmonize with voices*. The activity of cattle grazing produces no characteristic movement texture that is identifiable at a distance so great that the movement is more salient than the individual cows.

- Why must the *with*-NP must be semantically indefinite?

  This follows from the fact that an event occurs in every small subpart of the region, therefore each event has its own agent in that region. If the regions are so small as to create a texture-perception, then the minimal regions can't be clearly individuated or counted. There must be an agent in each of these regions, hence the total number of agents cannot be counted either. (Dowty, 2000:6-7)

9.2.1.2 The decompositional conceptual structure of the 'fourmiller'-eventity on four levels of abstraction

9.2.1.2.1 abstraction level I: to move as the exponent  The concept on abstraction level I is not lexicalized and *ad hoc* uses were not found.
9.2.1.2.2 abstraction level II: to move like the exponent On abstraction level II, a large number of exponents of the same kind (ontologically spoken: a collection) which move around all over the place, so that the scenario can be interpreted in terms of dynamic texture, qualify.

**basic entity II: (causeless motion)**

Près des maisons, les gueux, les nains aux jambes tordues, les goitreux, les boiteux, *fourmillent en tous sens* (FRANTEXT)
...mêmes quand le soleil la précise et l’achève et vient la regarder en face, même au jour, même quand les passants *fourmillent* à l’entour, d’une crainte secrète elle reste vêtue, elle est funèbre encore. (FRANTEXT)
...à perte de vue, ce n’est qu’une même forêt sans fin, d’une platitude uniforme, se mirant dans l’eau inerte et chaude, - une forêt malsaine, au sol humide, où les reptiles *fourmillent*. (FRANTEXT)
Tout un essaim d’oiseaux *fourville*, vole et rôde de l’arbre aux rocs moussus, et des herbes aux fleurs. (FRANTEXT)
Un champ de course est près des tombes *Esquillines*. Et parfois, quand la foule y *fourville* en tous sens, j’y sais, l’œil vaguement fixé sur les passants. (FRANTEXT)
Au contraire, les oiseaux y *fourmillaient*, jacamars, couroucous tragopans, tétras, loris, péruquets, kakatoës, faisans. (FRANTEXT)
Promener dans les rues qui *fourmillent*.  
.shtml, accessed on October 21 2007)

The decompositional conceptual structure of 'fourmiller' on abstraction level II (*basic entity II, causeless motion*) is as follows:
<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>eventity II</code>: exponents other than the exponent denoted by the noun base, with certain properties of the exponent being readjusted in terms of <code>eventity I</code>, or a lexeme denoting a place, with the verb inducing <em>domain highlighting</em> in the subject.</td>
<td><code>eventity I</code>: the fact that a <em>collection</em>, namely ‘des fourmis’, is implied governs by means of <em>domain mapping</em> the interpretation of the exponent denoted by the subject in terms of a <em>collection</em>, i.e. the interpretation that the exponent is present in large numbers and in a high density, and the focus is on the <em>collection</em> of exponents as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment <em>abstraction</em>. This is also the case when the subject position is occupied by a mass term. The approximate values of the elements ‘large numbers’ and ‘high density’ are adjusted to the domain in question by means of the focal adjustment <em>selection</em>. When the subject position is occupied by an expression denoting a place, this interpretation is reached by means of <em>domain highlighting</em>, i.e. the place is interpreted as being full of a large number of densely packed exponents.</td>
<td></td>
</tr>
</tbody>
</table>

| Grammatical relation: predicate | `eventity II`: unmodified *manner*-component, with the values of the manner elements being readjusted | `eventity I`: the fact that the manner-component is implied governs by means of *domain mapping* the interpretation that the exponents denoted by the subject move all over the place. The approximate values of the element ‘to move all over the place’ are adjusted to the domain in question by means of the focal adjustment *selection*. |

| Valency | only exponent present | *causeless, effectless* |
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*L-Subject-alternation:

Tout fourmille d’abeilles et d’oiseaux (FRANTEXT)
La vaste avenue fourmillait de voitures (FRANTEXT)
Mais la couche fourmilla de larves (FRANTEXT)
La place fourmille de monde. (FRANTEXT)
Les profondeurs des mers fourmillent de vie.
(http://www.centredessciencesdemontreal.com/fr/imax/imax_mers3d.htm, accessed on October 21 2007)

l’Alsace et la *Lorraine fourmillaient d’émigrés. (FRANTEXT)

The decompositional conceptual structure of ‘fourmiller’ on abstraction level II (L-Subject-alternation) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
<th>grammatical relation: de-phrase</th>
<th>valency</th>
</tr>
</thead>
<tbody>
<tr>
<td>background location</td>
<td>unmodified manner-component, with the values of the manner elements being readjusted</td>
<td>inventory II: exponents other than the exponent denoted by the noun base, with certain properties of the exponent being readjusted in terms of inventory I</td>
<td>exponent and background present</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>The implications concerning inventory I and inventory I are analogous to basic inventory II.</td>
</tr>
<tr>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

9.2.1.2.3 abstraction level III: hyperbole concepts There are no concepts on abstraction level III, neither lexicalized concepts nor ad hoc uses, because there are no modifications of the manner-component.

9.2.1.2.4 abstraction level IV: metaphorical concepts Metaphorical concepts are interpreted in terms of dynamic texture, i.e. the interpretation involves the idea that a large number of abstract entities of the same kind fictively move around all over the place.
CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS

**abstract basic eventity:** (causeless abstract motion)

Même en pleine canicule, les idées fourmillent.

Ce sont des données qui fourmillent dans de très nombreuses théories et applications sociales, ayant pour principale caractéristique de ne pas être...

...les émotions fourmillent en moi, alors, que les images défilent dans ma tête.
(http://www.djoliba.org/pdfgrin/grin_07.pdf, accessed on October 21 2007)

À l’orée d’une carrière des plus prometteuses, les rêves fourmillent dans sa tête.

The decompositional conceptual structure of 'fourmill' on abstraction level IV (abstract basic eventity, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity IV:</em> abstract exponent or a lexeme denoting a place</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity IV:</em> fictive motion event which is motivated by the manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The implications concerning *eventity I* and *eventity II* are analogous to basic *eventity II*.

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

**I-Subject-alternation:**

Et le regard, errant avec laisseraller devant lui, comme il sié, aux anciennes peintures, fourmille de pensées énormes d’aventures. (FRANTEXT)

Si quelqu’un émettait devant lui une de ces pensées d’égoïsme dont notre pauvre monde fourmille et sans lequel il n’existerait pas, sans se soucier de la qualité de cette personne, ni des égards que sa famille pouvait lui devoir, il lui montrait sur le champ un éloignement invincible, et rien ne l’ent décide à lui faire le moindre accueil. (FRANTEXT)
La majorité des écoles du quartier *fourmille* de projets.

Le quai *fourmilla* bientôt d’une agitation fébrile.
(http://www.kafkaiens.org/01kaf/nouvel.htm, accessed on October 21, 2007)

Le retard de la France est d’autant moins une fatalité que nous *fourmillons* de talents: 55 000 de nos informaticiens sont partis travailler en Angleterre...
(http://www.apiguide.net/03guide/05admini/Reponses_presidentielles_2002_candidat07.htm, accessed on October 21, 2007)

Nous, Socialistes, nous Français, nous Européens, *fourmillons* de propositions, de projets de réforme, de bonne volonté.
(http://www.ffesp.org/debats_PLichterowicz-PDumas-2611.htm, accessed on October 21, 2007)

The decompositional conceptual structure of 'fourmiller' on abstraction level IV (*L-Subject-alternation*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
<th>grammatical relation: de-phrase</th>
<th>valency</th>
</tr>
</thead>
<tbody>
<tr>
<td>background location</td>
<td><em>eventity IV</em>: fictive motion event which is motivated by the manner-component</td>
<td><em>eventity IV</em>: abstract exponent</td>
<td>exponent and background present</td>
</tr>
</tbody>
</table>

*Causeless, effectless*

<table>
<thead>
<tr>
<th>implicit</th>
<th>explicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>The implications concerning eventity I and eventity II are analogous to basic eventity II.</em></td>
<td></td>
</tr>
</tbody>
</table>

### 9.2.2 Nominal concept 'papillon', verbal concept 'papillonner'

**Inventity I and basic eventity I**: The polysemous lexeme 'papillon' is relevant here in its reading *Insecte ayant quatre ailes, après métamorphose de la chenille* (Le Robert Micro, 1998). The concept to move as the exponent denoted by the noun base is not lexicalized; it is explicated in 9.2.2.1. There is noncircular definition between *inventity I* and *basic eventity I*. 
Ontology: Within the ontological framework used here, the entity denoted by the lexeme 'papillon' can be classified as \textit{eventity}, more exactly as \textit{absolute individual}; and the entity denoted by the lexeme 'papillonner' as \textit{eventity}, more exactly as \textit{activity}.

Word Formation: noun base: 'papillon'; verbal suffix: -er; conversion; simulative

9.2.2.1 The explication of the \textit{manner}-component of the 'papillonner'-\textit{eventity}

For the establishment of the \textit{manner}-component of the 'papillonner'-\textit{eventity}, two aspects are probably of importance. First, it is a butterfly's specific way of flying which is characterized by an erratic element, i.e. the path motion in three-dimensional space involves many small, abrupt changes of direction. Second, there is the aspect that the butterfly approaches many places which it leaves a little later. So the \textit{manner}-component of the papillonner-\textit{eventity} can be described as follows: an erratic path motion in three-dimensional space which is executed by flying and is characterized by many small, abrupt changes of direction with many places (mainly: flowers) being approached and left after a little time.

9.2.2.2 The decompositional conceptual structure of the 'papillonner'-\textit{eventity} on four levels of abstraction.

9.2.2.2.1 abstraction level I: to move as the exponent

\textit{basic eventity I: (causeless motion)}

Les papillons en majorité couleur pâles jaunes-orangés, \textit{papillonner} dans ce paysage doux à mon coeur.
(http://www.ascenseur.oer-blog.com/article-2509710.html, accessed on October 21 2007)

Les papillons \textit{papillonner}, impressionnés par le tapis de Gilda.
(http://www.felix.cyberscol.qc.ca/LQ/auteurP/papin_1p/Gaudreault/descrip.html, accessed on October 21 2007)

The decompositional conceptual structure of 'papillonner' on abstraction level I (\textit{basic eventity I, causeless motion}) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.2.2.2.2 abstraction level II: to move like the exponent</td>
<td><em>eventity I:</em> exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td><em>eventity I:</em> manner-component</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

9.2.2.2.2 abstraction level II: to move like the exponent  There are no lexicalized concepts on abstraction level II and *ad hoc* uses were not found.

9.2.2.2.3 abstraction level III: hyperbole  There are five modifications of the *manner*-component on abstraction level III.

**Modification I**  Modification I involves only the first aspect of the *manner*-component in which an exponent or many exponents of the same kind fly erratically, i.e. execute many small, abrupt changes of direction in three-dimensional space. The element that many different places are approached and left after a little time is not present. Insects qualify here.

**basic eventity III (causeless motion)**

...depuis quelques jours, des certaines de millions de butineuses noires à rayures brun orangé ont pris leurs ailes à leur cou et *papillonnent* à travers les...
(http://www.beeckeeping.com/articles/fr/degelee_royale.htm, accessed on October 21 2007)

Nos beaux étangs grouillent d’une vie fascinante: les moustiques *papillonnent* paisiblement, les nénuphars bruissent langoureusement, tandis...
(http://www.jeuxalacarte.com/index.php?mode=1&typév=12&arg=13&cat=0&UserSession=a6243f0a2854f009c..., accessed on October 21 2007)

Des insectes *papillonnent* dans le jardin.

Au Printemps tout bourgeonne, Les insectes *papillonnent*, Les oiseaux font leurs nids, et tout devient jolis
The decompositional conceptual structure of 'papillonner' on abstraction level III (*basic eventity III, causeless motion*) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation:</td>
<td><em>eventity III</em>: exponents other than the exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td><em>eventity III</em>: modified manner-component</td>
<td><em>eventity I</em>: The fact that certain aspects of the manner-component are implied governs by means of <em>domain mapping</em> the interpretation that the path motion of the exponent denoted by the subject involves a large number of abrupt, small changes of direction and that these changes of direction recur with high, irregular frequency. The approximate values of the elements *'a large number', *'abrupt, small changes of direction', and <em>'high, irregular frequency'</em> are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
</tr>
<tr>
<td>predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

**I-Subject-alternation:**

An example was not found.

**Modification II** Modification II is identical with Modification I in that it involves only the first aspect of the manner-component, i.e. the fact that an exponent or many exponents of the same kind fly erratically and execute many small, abrupt changes of direction in three-dimensional space. The only difference is that the motion is not caused by the exponent but by external forces (e.g. wind). Snowflakes, blossoms or confetti qualify here.

**basic eventity III (causeless motion)**
CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS

Le vent tourbillonne, Sur la vallée enneigée, Les flocons *papillonnent*.
(http://www.didierbovard.com/IMAGES/KING/alizee.htm, accessed on October 21 2007)
Les feuilles *papillonnent* en tourbillonnant.
Au gré du vent, les pétales des fleurs *papillonnent*.

The decompositional conceptual structure of 'papillonner' on abstraction level III (*basic entity III, causeless motion*) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation:</td>
<td>*inventory III: exponents other than the</td>
<td>The implications concerning certain</td>
</tr>
<tr>
<td>subject</td>
<td>exponent denoted by the noun base</td>
<td>aspects of the manner-component are</td>
</tr>
<tr>
<td>grammatical</td>
<td>*entity III: modified manner-component</td>
<td>analogous to <em>basic entity</em> of Modification</td>
</tr>
<tr>
<td>relation: predicate</td>
<td></td>
<td>I.</td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

*L-Subject-alternation:*

An example was not found.

*Modification III:* The element that the path motion is executed by flying is replaced by other ways of executing a path motion. It is often the case that there is the additional evaluating element that the approaching and leaving of many different places is executed in a superficial manner such that there is no real interest in any of the places approached. This evaluating element is probably motivated by the fact that the butterfly's way of flying is erratic in nature. The exponent is - ontologically speaking - in all the cases an *absolute individual*.

*basic entity III:* (*causeless motion*)
Là, fourmillait, s’agitaient et papillonnaient les plus jolies femmes de Paris, les plus riches, les mieux titrées, éclatantes, pompeuses, éblouissantes de diamants. (FRANTEXT)
Les jeunes papillonnèrent et allumèrent des cigarettes. (FRANTEXT)
...comme celles d’un homme ivre, montrant son gilet blanc sale et son jabot de grosse mousseline recroquevillée qui s’unissait imparfaitement à sa cravate cordée autour de son cou de dindon, bien des gens se demandaient si cette ombre chinoise appartenait à la race audacieuse des fils de Japhet qui papillonnent sur le boulevard italien. (FRANTEXT)
Il papillonne de maison en maison, une rose nouvelle chaque matin à la boutonnière de sa veste de gros tweed voyant. (FRANTEXT)
...quand ils recommencent les calomnies à la Goebbels, quand ils osent parler de camps de concentration en U.R.S.S., alors la colère me monte là... Ses doigts papillonnaient, ses mains remontaient le long de ses cuisses, de ses hanches, sans les toucher, à trois centimètres... (FRANTEXT)
...lui, agile et déluré, salue, sourit, papillonne, se démène des bras, des jambes, des yeux, de la tête, avec une pétulance de méridional. (FRANTEXT)
Esther furétait comme furétaient les femmes avant de se coucher, elle allait et revenait, elle papillonnait en chantant. (FRANTEXT)
Il cause, il voltige, il papillonne, il parle dans le nez de la princesse. (FRANTEXT)
La ville d’Alençon n’était cependant pas entièrement représentée par ce salon, la haute compagnie aristocratique avait le sien, puis le salon du receveur général était comme une auberge administrative due par le gouvernement où toute la société dansait, intriguait, papillonnait, aimait et soupirait. (FRANTEXT)

The decompositional conceptual structure of 'papillonner' on abstraction level III (basic eventity III, causeless motion) is as follows:
CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
</table>
| grammatical relation: predicate | *entity III*: modified manner-component | *entity I*: The fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the path motion of the exponent denoted by the subject involves a large number of abrupt, small changes of direction and that these changes of direction recur with high, irregular frequency. This may additionally be evaluated as superficial. The approximate values of the elements 'a large number', 'abrupt, small changes of direction', 'high, irregular frequency', and the nature and the approximate values of the element 'superficial' are adjusted to the domain in question by means of the focal adjustment *selection*.

| valency | only exponent present | *causeless, effectless* |

**Modification IV:** Modification IV does not involve a path motion any longer, but involves instead an exponent's twitching inner motion.

**basic entity III:** (*causeless motion*)

L'un de ses interlocuteurs prend-il la parole, ses lèvres *papillonnt*, et se détourne-t-on de lui un instant, les commissures de la bouche arquées vers le bas, son visage se noie dans l'amertume. (FRANTEXT)

A droite sur un fond de voiles blanches qui *papillonnt*, les remparts hiératiques et séculaires de la Ville-Close.

(http://www.concarneau.org/ville-de-concarneau/aux-environs, accessed on October 21 2007)
CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS

The decompositional conceptual structure of 'papillonner' on abstraction level III (basic event III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: predicate</td>
<td>event III: modified manner-component</td>
<td>event III: The fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the twitching inner movement, which is executed by the exponent denoted by the subject, recurs abruptly and with high but irregular frequency. The approximate values of the elements 'abruptly' and 'high but irregular frequency' are adjusted to the domain in question by means of the focal adjustment selection.</td>
</tr>
</tbody>
</table>

| valency | only exponent present | causeless, effectless |

L-Subject-alternation:

Heureux mais fourbu, les yeux qui papillonnt de fatigue. Et il faut encore que j’assiste à une conférence ce soir. (http://captainbooks.blogspot.com/2006_04_09_archive.html, accessed on October 21 2007)


The decompositional conceptual structure of 'papillonner' on abstraction level III (L-Subject-alternation) is as follows:
### Chapter 9. French Exponent-Shaped Motion Verbs

<table>
<thead>
<tr>
<th>Grammatical Relation: Subject</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>background location</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical Relation: Predicate</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>entity III: modified manner-component</td>
<td></td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic entity of Modification IV.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical Relation: De-phrase</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>entity III: exponents other than the exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>exponent and background present</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

**Modification V:** A special case is the restlessly wandering eye. Talmy in (Talmy, 2002:110), points out that the sight is conceptualized as if it executed a path motion. Talmy speaks here about (...) the motion of the line of sight that emerges from my eyes.

**Basic Entity III:** *(causeless motion)*

Le regard de Madame mère se fit aérien, léger comme phalène, *papillonner* devant le mien, monta au plafond, alla se brûler du côté de la lampe et revint se poser doucement en face d'elle sur la corolle de cristal de son verre, où il métamorphosa soudain, pour repartir droit devant lui, raide comme balle, accompagnant la voix qui décérait... *(FRANTEXT)*

J'ai jamais été à l'aise avec les profs, même les plus aimables je m'en fiche, encore le premier jour on peut se faire minuscule, leurs yeux *papillonner* sur tout le monde, il y avait déjà des élèves qui essayaient de stopper le vol sur eux par des remarques intelligentes. *(FRANTEXT)*

Les yeux de Porthos s'abaissaient furtivement sur cette dame, puis *papillonnaient* au loin dans la nef. *(FRANTEXT)*

The decompositional conceptual structure of 'papillonner' on abstraction level III *(basic entity III, causeless motion)* is as follows:
### CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>inventivity III:</strong> exponents other than the exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td><strong>inventivity III:</strong> modified manner-component</td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic eventity of Modification I.</td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><strong>causeless, effectless</strong></td>
</tr>
</tbody>
</table>

#### 9.2.2.4 abstraction level IV: metaphorical concepts

First, there are concepts which seem to be motivated by Modification III (or by the manner-component, including the additional element that the activity is evaluated as superficial). Here, the concrete or abstract entity is considered to fictively move around erratically, approaching and leaving many concrete or abstract places, and this activity is evaluated as superficial.

**abstract basic eventity:** *(causeless abstract motion)*

En effet, on observe, par exemple, que les internautes masculins *papillonner* plus et achètent moins que leurs homologues féminins qui sont plus...  

Qui n’a jamais rencontré un enfant hyperactif, un de ces enfants dont on dit qu’ils ne tiennent pas en place, qu’ils *papillonnent* d’une activité à l’autre...  

Or ils ne font que s’emboîter l’esprit, ceux qui *papillonnent* de livre en livre, comme ceux qui volent de plaisir en plaisir ne font que s’étourdir les...  
(http://www.dialogus2.org/SEN/lucilius.html, accessed on October 21 2007)

S’il tient bien de notre père son grand nez, sa mollesse et cette fausse intelligence qui *papillonne* à la surface des choses (et se croit lumineuse, parce qu’elle est Rezeau), c’est de notre mère qu’il tient - à l’état mineur - cet égoïsme (impavide chez elle, mendiant chez lui), ce goût du soupçon, cette hargne (agressive chez elle, désolée chez lui). (FRANTEXT)
The decompositional conceptual structure of 'papillonner' on abstraction level IV (abstract basic entity, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory IV: concrete or abstract exponent</td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic entity of Modification III.</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td>eventy IV: fictive motion event which is motivated by the manner-component and/or by Modification III of the hyperbole concepts</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

Second, there are concepts which seem to be motivated by Modification I and/or by Modification V, i.e. an abstract entity or many abstract entities of the same kind are considered to move around erratically all over the place. The idea that the abstract entity approaches abstract places is not involved here.

**abstract basic entity:** (causeless abstract motion)

Allez, mettons vingt à l’actif de Mainterne, pour les idées qui lui ont papillonné dans le cerveau ce matin-là, et les matins suivants. (FRANTEXT)

Accablé des compliments auxquels il avait été en butte toute la journée, les mots de carrière superbe, de bel avenir, de premier pas brillant, papillonnaient devant ses yeux et lui faisaient mal à la tête. (FRANTEXT)

...c’est aussi les petites histoires des gens, le vrai-faux chien de la dame, le couple qui s’égratigne, les sentiments qui papillonnent, les idées... (http://www.lespetitssuisseaux.com.preview7.oxito.com/editions/crater/2001_2002/20012002.html, accessed on October 21 2007)


Pendant que l’esprit papillonnaient en se perçant dans des pensées lugubres, nous voilà arrivés à la station. (http://www.algerie-dz.com/article935.html, accessed on October 21 2007)
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S'il tient bien de notre père son grand nez, sa mollesse et cette fausse intelligence qui papillonne à la surface des choses (et se croit lumineuse, parce qu'elle est Rezeau), c'est de notre mère qu'il tient - à l'état mineur - cet égoïsme (impavide chez elle, mendiant chez lui), ce goût du soupçon, cette hargne (agressive chez elle, désolée chez lui). (FRANTEXT)

The decompositional conceptual structure of 'papillonner' on abstraction level IV (abstract basic entity, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th>Grammatical Relation: Subject</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventivity IV: concrete or abstract exponent</td>
<td>The implications concerning certain aspects of the manner-component are analogous to basic entity of Modification I and V, respectively.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical Relation: Predicate</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eventity IV: fictive motion event which is motivated by Modification I and/or of the hyperbole concepts</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

L-Subject-alternation:

...ces peintures dont les noirs vibrent de brun roussi et les gris papillonnet de blanc.

Les jupes des filles papillonnet de lumière.

Mon regard papillonne de frimouses en minois.

The decompositional conceptual structure of 'papillonner' on abstraction level IV (L-Subject-alternation) is as follows:
<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td>background: <em>location</em></td>
<td>The implications concerning certain aspects of the manner-component are analogous to <em>basic eventity</em> of Modification I and V, respectively.</td>
</tr>
<tr>
<td>relation: subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td><em>eventity IV</em>: fictive motion event which is motivated by Modification I and/or V of the hyperbole concepts</td>
<td></td>
</tr>
<tr>
<td>relation: predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td><em>eventity IV</em>: concrete or abstract exponent</td>
<td></td>
</tr>
<tr>
<td>relation: de-phrase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>exponent and background present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

9.2.3 Nominal concept 'serpent', verbal concept 'serpenter'

*eventity I* and *basic eventity I*: The polysemous lexeme 'serpent' is relevant here in its reading *Reptile à corps cylindrique très allongé, dépourvu de membres apparents* (Le Robert Micro, 1998). The concept to move as the exponent denoted by the noun base is not lexicalized; it is explicated in 9.2.3.1. There is noncircular definition between *eventity I* and *basic eventity I*.

**Ontology:** Within the ontological framework used here, the entity denoted by the lexeme 'serpent' can be classified as *eventity*, more exactly as *absolute individual*; and the entity denoted by the lexeme 'serpenter' as *eventity*, more exactly as *activity*.

**Word Formation:** noun base: 'serpent'; verbal suffix: -er; conversion; simulative

9.2.3.1 The explication of the *manner*-component of the 'serpenter'-*eventity*

When the snake snakes, the S-shaped body of the snake is what is actually characteristic about the 'serpenter'-*eventity*. This is, however, not a *path*
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motion but an inner motion. The snake does not move on a sinuously-shaped path. Here, path motion is, as in the case of the German verb 'rollen', due to friction. When there is no friction, the snake executes the 'serpenter'-entity without executing a path motion. Thus there is a causal relationship between inner motion and path motion.

9.2.3.2 The decompositional structure of the 'serpenter'-entity on four levels of abstraction

9.2.3.2.1 abstraction level I: to move as the exponent The concept on abstraction level I is not lexicalized and ad hoc uses were not found.

9.2.3.2.2 abstraction level II: to move like the exponent There are no lexicalized concepts on abstraction level II and ad hoc uses were not found.

9.2.3.2.3 abstraction level III: hyperbole concepts There are three modifications of the manner-component on abstraction level III.

Modification I: Modification I is a case of path-shaped motion. It covers parades and convoys, which are conceptualized as something long and flexible. They move on a sinuously-shaped path which is additionally an inner motion. There is no causal relationship between path motion and inner motion. There are no further manner restrictions.

basic eventity III: (causeless motion)

Durant près d’une demi-heure, le long cortège serpenta le long des tombes, encore toutes ornées des chrysanthèmes de la Toussaint.
(http://www.users.skynet.be/sitepourdavid/article17.htm, accessed on October 21 2007)

Des chars somptueusement décorés et des fanfares colorées serpentaient alors à travers les villes.

Le serpent multicolore formé par nos Beetle serpenta ensuite dans les petites routes belges, en un spectacle toujours aussi enthousiasmant!
(http://www.perso.orange.fr/gwrach-du-nevez/Pages/021109.htm, accessed on October 21 2007)
La procession *serpenta* dans les rues et passa sur la place de Grève où six réformés, garrottés aux poteaux, attendaient que le roi lui-même mit le feu...
(http://bible.free.fr/histoire/09eglise.pdf, accessed on October 21 2007)
Radio à la main, guidé par Jean Pierre, le convoi *serpenta* sur les chemins.
(http://www.vol.libre.free.fr/b1sergebip.htm, accessed on October 21 2007)
Au Pérou, les trains *serpentent* à l’assaut des Andes en franchissant des viaducs vertigineux et des tunnels sans fin.
(http://www.arte.tv/fr/connaissance-decouverte/Un-billet-de-train-pour /1573018,CmC=1576974.html, accessed on October 21 2007)

The decompositional conceptual structure of 'serpenter' on abstraction level III (*basic entity III, causeless motion*) is as follows:

<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th><em>entity III</em>: exponents other than the exponent denoted by the noun base</th>
<th>implicit</th>
</tr>
</thead>
</table>
|Grammatical relation: predicate| *entity III*: modified manner-component| *entity I*: the fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the exponent’s sinuously-shaped path motion involves a large number of bends and that there is only little distance between two bends. The approximate values of the elements 'a large number of bends' and 'little distance between two bends' are adjusted to the domain in question by means of the focal adjustment *selection*.

**Valency**: only exponent present

**Modification II**: Modification II is a case of path-shaped motion as it involves an exponent’s executing a sinuously-shaped path motion. There are no further manner restrictions.

**basic entity III**: *(causeless motion)*
CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS

Tantôt on apercevait avec effroi au plus haut d’une des tours un nain bizarre qui grimpait, serpental, rampait à quatre pattes, descendait en dehors sur l’abime, sautelait de saillie en saillie, et allait fouiller dans le ventre de quelque gorgone sculptée. (FRANTEXT)

C’était vraiment un spectacle digne d’un spectateur plus intelligent que Phoebus, de voir comme ces belles filles, avec leurs langues envenimées et irritées, serpentaient, glissaient et se tordaient autour de la danseuse des rues. (FRANTEXT)

...mais, comme il se préparait à traverser la place du Palais pour gagner le tortueux labyrinthe de la Cité, où serpentent toutes ces vieilles sœurs, les rues de la Barillerie, de la Vielle-Draperie, de la Savaterie, de la Juiverie,... (FRANTEXT)

Il y avait une source dont l’eau serpentait, grosse comme le bras, à travers la plaine.


Nous serpents ensuite au pied de la falaise, sur le flanc d’une rivière asséchée pour découvrir toutes les petites statuettes incrustées dans la roche.

(http://lachinedemanuelfab.ifrance.com/site/routescie/routescie.htm, accessed on October 21 2007)

Des larmes serpentent sur ses joues, pleines de rides et de désespoir.


Des racines de gentiane serpentent autour de la bouteille.

(http://www.lavitrinesuze.free.fr/Pages/Bouteille/lvsbouteille1.html, accessed on October 21 2007)

C’est la question que nous nous posions, alors que nous serpents dans les cols qui mènent à Lalouvesc, 1100 m d’altitude dans les Cévennes,...


The decompositional conceptual structure of ‘serpenter’ on abstraction level III (basic eventity III, causeless motion) is as follows:
**Chapter 9. French Exponent-Shaped Motion Verbs**

<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th><em>inventory III</em>: exponents other than the exponent denoted by the noun base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammatical relation: predicate</td>
<td><em>event III</em>: modified manner-component</td>
</tr>
<tr>
<td>Valency</td>
<td>Only exponent present</td>
</tr>
</tbody>
</table>

**Modification III**: Modification III involves the sinuous extension of something (e.g. streets, rivers, rails), which is conceptualized as a fictive motion event.

**Basic eventity III**: (*causeless motion*)

> Le fleuve jusqu'aux mers dans les plaines *serpente*. (FRANTEXT)
> 
> J'appris plus tard que cette rue *serpentai* entre les tombes des premiers moines et fut rectifiée après qu'on eut transféré les corps au cimetière du Nord.  
> 
> Le promeneur pourra aussi goûter au calme surprenant, longer donc un des ruisseaux qui *serpentin* dans la campagne où murmurent en forêt le chant de l'eau.  
> 
> Le chemin *serpentait* dans l’oliveraie entre les fosses d’irrigation miroitants qui s’élargissaient de temps à autre pour former des mares bordées de roseaux...  

The decompositional conceptual structure of 'serpenter' on abstraction level III (*basic eventity III, causeless motion*) is as follows:
### 9.2.3.2.4 Abstraction Level IV: Metaphorical Concepts

Metaphorical concepts are motivated by Modification I. Here, an abstract entity is considered to execute a fictive path motion in a snaking fashion.

**Abstract Basic Eventity: (causeless abstract motion)**

Mon amour *serpentai* par ces faux-fuyants sinueux, comme une eau l’herbe qui la dérobe. (FRANTEXT)

Les surprenantes et fraîches compositions de Christian McBride *serpentin* entre le standard, le be-bop, la fusion ou carrément le pop.

(http://www.radio-canada.ca/Par4/mag/20001217/20001217.html, accessed on October 21 2007)

Quelque chose de pareil au sifflement d’une vipère *serpenta* au milieu de ces applaudissements, et les éteignit tout à coup.


Ce fut alors que ses traits grossirent, que son ventre poussa et qu’une barbe de sapeur lui *serpenta* le long du menton et des joues.

(http://www.huysmans.org/detout/detout22.htm, accessed on October 21 2007)

The decompositional conceptual structure of ‘serpenter’ on abstraction level IV (*abstract basic eventity, causeless abstract motion*) is as follows:
### 9.3 Social Types

#### 9.3.1 Nominal concept 'vagabond’, verbal concept 'vagabonder’

**invent
ity I and basic event
ity I:** The meaning of the lexe
me 'vagabond’ is *Personne sans domicile fixe et sans ressources, qui se déplace à l’aventure* (Le Robert Micro, 1998). The polysemous lexe
me 'vagabonder’ is relevant here in its reading *circuler, marcher sans but, se déplacer sans cesse ⇒ errer* (Le Robert Micro, 1998). There is noncircular def
inition between *invent
ity I and basic event
ity I.*

**Ontology:** Within the ontological framework used here, the entity denoted by the lexe
me 'vagabond’ can be classified as *invent
ity, more exactly as absolute individual; and the entity denoted by the lexe
me 'vagabonder’ can be classified as *event
ity, more exactly as activity.*

**Word Formation:** noun base: 'vagabond’; verbal suf
fix: -er; conversion; similative

#### 9.3.1.1 The explication of the manner-component of the 'vagabonder’-event
ity

The *manner-component of the 'vagabonder’-event
ity* lies in the exponent’s execution of a path motion which is characterized by many changes of place. He or she certainly mainly walks, but there are also other possibilities (e.g.
the exponent or exponents move around in a covered wagon). There is the additional element that this activity is evaluated as unplanned and aimless.

9.3.1.2 The decompositional structure of the ‘vagabonder’-event

9.3.1.2.1 abstraction level I: to move as the exponent

**basic event** I: *(causeless motion)*

La vie matérielle continue à être dure. Parfois sans domicile, il est un de ces errants qui *vagabondent* dans Paris.

(http://www.theatreonline.com/guide/save_compteur.asp?i_Ariste=24307&lst_region=0&i_Qualite=2&i_Page=1, accessed on October 21 2007)

The decompositional conceptual structure of ‘vagabonder’ on abstraction level I (*basic event* I, *causeless motion*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventy</em> I: exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th><em>eventy</em> I: manner-component</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>only exponent present</th>
<th><em>causeless, effectless</em></th>
</tr>
</thead>
</table>

9.3.1.2.2 abstraction level II: to move like the exponent

Exponents which are not vagabonds but which rove around for other reasons than being homeless qualify here.

**basic event** II: *(causeless motion)*

Jusqu’à une date récente, les mammouths *vagabondèrent* du Mexique au Canada.

(http://www.urantia.org/french/fascicules/fascicule061.html, accessed on October 21 2007)

Les clients peuvent se relaxer dans des hamacs et observer les oiseaux tropicaux qui *vagabondent* dans le jardin.

The decompositional conceptual structure of 'vagabonder' on abstraction level II (*basic eventity II, causeless motion*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity II</em>: exponents other than exponent denoted by the noun base which qualify for the <em>manner</em>-component</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td><em>eventity I</em>: unmodified <em>manner</em>-component</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

### 9.3.1.2.3 abstraction level III: hyperbole concepts

There are three modifications of the *manner*-component on abstraction level III.

**Modification I:** Modification I involves the idea that people rove around or travel around because they want to get to know the world. It seems to be the case that whenever people who are not tramps execute the vagabonder-*eventity*, there is this additional element present. The element that the changes of place are unplanned may thus be still present (but need not be present); the activity is not aimless any more.

**basic eventity I** (*causeless motion*)

Vos billets de vols pour Londres en poche, *vagabondize* dans les rues londoniennes.


A proximité, entrez et *vagabondize* dans le golfe du Morbihan, ses multiples passages, mouillages et îles…


Perdez-vous dans ses petites ruelles fraîches et *vagabondize* dans cette cité étudiante qui résonne des accents chantant de la population.


Nous *vagabonds* à La Havane pour en découvrir les côtés inexplorés le premier jour

(http://www.isadon.top-depart.com/, accessed on January 1 2008)
CHAPTER 9. FRENCH expONENT-SHAPED MOTION VERBS 435

The decompositional conceptual structure of 'vagabonder' on abstraction level III (basic eventivity III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: predicate</td>
<td>eventivity III: modified manner-component</td>
<td>eventivity I: the fact that certain aspects of the manner-component are implied governs by means of domain mapping the interpretation that the exponent's changes of place take place with high, irregular frequency. The nature of the 'changes of place' and the approximate values of the element 'high, irregular frequency' are adjusted to the domain in question by means of the focal adjustment selection.</td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

Modification II: Modification II differs from the manner-component and from Modification I in the element that the exponent does not move around in the world, but in protected rooms (e.g., in gardens or museums). As in Modification I, the element that the exponent wants to get to know something new is present.

basic eventivity III: (causeless motion)

L’espace de tous les instants, matin, midi, soir, les visiteurs vagabondent, se posent, se rencontrent dans votre salon qui, propice aux confidences,...

Vagabondez dans la galerie de tableaux “L’Art Découvert”, agrandissez les œuvres exposées, dans un bouleversement jubilatoire des...
(http://www.bonweb.com/galerie/similar, accessed on October 21 2007)
Il vagabonda dans le jardin durant toute cette période. Il ne pouvait se décider à choisir...

The decompositional conceptual structure of 'vagabonder' on abstraction level III (basic eventity III, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstruction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity III: modified manner-component</td>
<td></td>
</tr>
<tr>
<td>The nature and approximate values of the additional element 'to get to know something new' are adjusted to the domain in question by means of the focal adjustment selection</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

Modification III: Modification III covers the multiple change of place of things which is caused by somebody or something (e.g. certain circumstances).

basic eventity III: (causeless motion)

Ainsi ses lettres vagabondèrent d’un grenier à l’autre, dans l’armoire et sur l’armoire, et de là au grenier et puis enfin...
(http://www.lyber-eclat.net/lyber/amichai/morts_pere.html, accessed on October 21 2007)

The decompositional conceptual structure of 'vagabonder' on abstraction level III (basic eventity III, causeless motion) is as follows:
## Chapter 9. French Exponent-Shaped Motion Verbs

### 9.3.1.2.4 Abstraction Level IV: Metaphorical Concepts

On abstraction level IV there are, on one hand, concepts which are motivated by the *manner*-component. Abstract entities (e.g. perception, attention, thought or feelings) are considered to wander around aimlessly.

**Abstract Basic Eventity: (causeless abstract motion)**

Ne *vagabondé*z pas hors sujet, ne divaguez pas et ne postez pas simplement pour faire une remarque futile.

Faites contact avec les yeux. Soyez ici maintenant, ne *vagabondéz* pas. Paraphrasez les mots de vos interlocuteurs pour voir si vous avez bien écouté.
(http://www.polyamour.net/French/fr_doesandcants.htm, accessed on October 21 2007)

Quel parfum nous embaumes-tu! Emotions fécondes, ondes profondes, *vagabondéz* à chaque fois dans notre cervelle.

Mon oreille distraite *vagabondait* dans les couloirs et les bureaux.
The decompositional conceptual structure of ‘vagabonder’ on abstraction level IV (*abstract basic eventity, causeless abstract motion*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventity IV:</em> abstract exponent</td>
<td><em>eventity I:</em> the fact that certain aspects of the <em>manner</em>-component are implied governed by means of <em>domain mapping</em> the interpretation that the exponent denoted by the subject aimlessly executes a large number of changes of place, which recur with high, irregular frequency. The nature of the changes of place and of the elements ‘aimlessly’ and the approximate values of the elements ‘a large number’ and ‘high, irregular frequency’ are adjusted to the domain in question by means of the focal adjustment <em>selection.</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th><em>eventity IV:</em> fictive motion event which is motivated by the <em>manner</em>-component</th>
<th><em>causeless, effectless</em></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>only exponent present</th>
<th><em>causeless, effectless</em></th>
</tr>
</thead>
</table>

On the other hand, there are metaphorical concepts which are motivated by Modifications I and/or II. An abstract entity (e.g. perception, attention, thought or feelings) is considered to wander around to discover something new.

*abstract basic eventity: (causeless abstract motion)*

Vagabondez avec nous dans le domaine de l’écrit.

Alors vagabondez sur le Net, il regorge en ce moment de conseils beauté.
(http://www.interneto.fr/dossiers/beaute.html, accessed on October 21 2007)

Découvrez ses œuvres, vagabondez parmi les poèmes du mur de l’an dernier (une anthologie originale) et proposez les vôtres pour celui de l’an prochain.
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>\textit{entity} IV: abstract exponent</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: predicate</td>
<td>\textit{entity} IV: fictive motion event which is motivated by Modification I and/or II of the hyperbole concepts. Since Modifications I and II involve the additional element that the path motion is motivated by the exponent’s desire to get to know something new, metaphorical concepts which are motivated by these modifications also involve this element. The nature and the approximate values of the element “to get to know something new” are adjusted to the domain in question by means of the focal adjustment \textit{selection}.</td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
</tr>
</tbody>
</table>

The decompositional conceptual structure of 'vagabonder' on abstraction level IV (\textit{abstract basic entity, causeless abstract motion}) is as follows:
9.4 Formations I

9.4.1 Nominal concept 'goutte', verbal concept 'gouter'

_inventity I and basic eventity I_: The polysemous lexème 'goutte' is relevant here in its reading très petite quantité de liquide qui prend une forme arrondie. The meaning of 'gouter' is couler goutte à goutte (Le Robert Micro, 1998). There is noncircular definition between _inventity I_ and _basic eventity I_.

**Ontology:** Within the ontological framework used here, the entity denoted by the lexème 'goutte' can be classified as _inventity_, more exactly as _absolute individual_; the entity denoted by the lexeme 'gouter' can be classified as _eventity_, more exactly as _activity_.

**Word Formation:** noun base: 'goutte'; verbal suffix: -er, conversion; simulative

9.4.1.1 The explication of the _manner_-component of the 'gouter'-_eventity_

The _manner_-component of the 'gouter'-_eventity_ can be explicated as follows: the exponent 'goutte' falls.

9.4.1.2 The decompositional conceptual structure of the 'gouter'-_eventity_ on four levels of abstraction

9.4.1.2.1 abstraction level I: to move as the exponent

_basic eventity I:_ (causeless motion, valency frame I)

Non non, en fait ça _goutte_ de l’intérieur...
fairecannone.aceboard.fr/41840-131-9958-0-recharge-cumulus.htmforum

The decompositional conceptual structure of 'goutter' on abstraction level I (_basic eventity I, causeless motion, valency frame I_) is as follows:
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| gramatical  | explicit      | implicit              |
| relation:   | 0             |                       |
| subject     |               |                       |
| grammatical |   eventity I:  |                       |
| relation:   |   manner-component |                   |
| predicate   |               |                       |
| valency     | 0             | causeless, effectless |

basic eventity I: (causeless motion, valency frame II)

Ses larmes gouttèrent sur le sol.

The decompositional conceptual structure of 'goutter' on abstraction level I (basic eventity I, causeless motion, valency frame II) is as follows:

| gramatical  | explicit     | implicit            |
| relation:   |   eventity I: |                       |
| subject     |   exponent denoted by |                       |
|             |   the noun base |                       |
| grammatical |   eventity I:  |                       |
| relation:   |   manner-component |                   |
| predicate   |               |                       |
| valency     | only exponent present |                       |
|             |   causeless, effectless |               |

basic eventity I: (causeless motion, interpreted metonymically)

Dieu, quand tu sortis devant ton peuple, quand tu marchas dans le désert, la terre trembla, et les cieux gouttèrent devant Dieu.

Le ciel est gris, la pluie tombe. Les arbres gouttent dans le jardin.
(http://lanchron.dyadel.net/pleuve.htm, accessed on October 21 2007)

Quand un robinet goutte, c'est le plombier de l'usine qui venait;
(http://www.humanite.fr/2001-06-22_Politique_BATA-Social-La-ferme-
ture-de-l-usine-effacerait-les-vies, accessed on January 1 2008)
The decompositional conceptual structure of 'goutter' on abstraction level I, with the verb 'goutter' inducing domain highlighting in the subject (basic eventity I, causeless motion, interpreted metonymically), is as follows:

<table>
<thead>
<tr>
<th>grammatical relation</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject</td>
<td>exponents which either contain or transport substances and which drip because they leak or exponents which absorb substances and drip because they are saturated. (subject is interpreted metonymically)</td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td>eventity I: manner-component (predicate induces domain highlighting in the subject)</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

9.4.1.2.2 abstraction level II: to move like the exponent There are no concepts on abstraction level II, neither lexicalized concepts nor ad hoc uses, because only drops qualify for the manner-component of the 'goutter'-eventity.

9.4.1.2.3 abstraction level III: hyperbole concepts There are no concepts on abstraction level III, neither lexicalized concepts nor ad hoc uses, because there are no modifications of the manner-component.

9.4.1.2.4 abstraction level IV: metaphorical concepts There are no lexicalized concepts on abstraction level IV, and ad hoc uses were not found.

9.4.2 Nominal concept 'tourbillon', verbal concept 'tourbillonner'

*eventity I and basic eventity I:* The polysemous lexeme 'tourbillon' is relevant here in its reading Masse d'air qui tournoie rapidement ⇒ cyclone and Mouvement tournant et rapide d'un fluide (...) respectively (Le Robert Micro, 1998), and the lexeme 'tourbillonner' in its reading former un tourbillon, (Le Robert Micro, 1998). There is circular definition between *eventity I* and *basic eventity I.*
Ontology: Despite the fact that the nominal and the verbal concept imply each other, the concept denoted by the noun is ontologically not hybrid. Thus, within the ontological framework used here, the entity denoted by the lexeme 'tourbillon' can be classified as *inventy*, more exactly as *absolute individual*; the entity denoted by the lexeme 'tourbillonner' can be classified as *eventy*, more exactly as *activity*.

Word Formation: noun base: *tourbillon*; verbal suffix: -er, conversion; similative

9.4.2.1 The explication of the *manner*-component of the 'tourbillonner'-*eventy*

The *manner*-component of the 'tourbillonner'-*eventy* can be explicated as follows: a mass of air or water rotates quickly; this is an inner movement.

9.4.2.2 The decompositional conceptual structure of the 'tourbillonner'-*eventy* on four levels of abstraction

9.4.2.2.1 abstraction level I: to move as the exponent

*basic eventy I: (causeless motion)*

Soudain, un vent très chaud *tourbillonna* dans la pièce,...
Les vents d’un ouragan *tourbillonnent* et le centre du tourbillon (de la spirale) s’appelle l’œil de l’ouragan.
(http://www.atlantic.gc.ca/weather/hurricane/kids1b_f.html, accessed on October 21 2007)
Les eaux de la Méditerranée *tourbillonnent* dans l’Atlantique.

The decompositional conceptual structure of 'tourbilloner' on abstraction level I (*basic eventy I, causeless motion*) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory I: exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory I: manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

valency only exponent present causeless, effectless

9.4.2.2.2 abstraction level II: to move like the exponent Substances other than air or water which form a whirlpool and collections which form a whirlpool qualify here.

**basic eventity II: (causeless motion)**

...la fumée sortait avec violence par les deux fenêtres au-dessus de l’écurie, et le toit était couvert d’une fumée noire qui tourbillonnait. (FRANTEXT)

Les nuages tourbillonnent, le vent se lève, tout le monde se met à l’abri,...


Quand les feuilles de chêne tourbillonnent sous le vent dans les carrefours de bruyère, elles ne regrettent pas davantage la cime de l’arbre, ni le creux de la grotte. (FRANTEXT)

Comme nous étions là, une volée d’oiseaux est entrée tout à coup, a tourbillonné avec des cris et s’est enfuie par le trou de la cheminée. (FRANTEXT)

Dans les jours d’orages surtout, lorsque le lourd sirocco pèse sur la plaine, et que la poussière commence à tourbillonner, alors apparait dans sa majesté sombre la capitale du désert. (FRANTEXT)

The decompositional conceptual structure of 'tourbillonner' on abstraction level II (**basic eventity II, causeless motion**) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>event</strong> II: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of <strong>event</strong> I.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>event</strong> II: unmodified manner-component with the values of the manner elements being readjusted</td>
<td></td>
<td>The fact that a <strong>substance</strong>, namely 'air' or 'water', is implied governs (in the case that the subject position is occupied by a noun denoting an entity which is - ontologically speaking - an <strong>absolute individual</strong>) by means of domain mapping the interpretation that the exponent denoted by the subject is present in large numbers and in a high density. The focus is on the exponents as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment <strong>abstraction</strong>. The fact that a formation, namely 'un tourbillon', is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject is present as a whirlpool-like formation. The approximate values of the elements 'large numbers', 'high density' and 'whirlpool-like formation' are adjusted to the domain in question by means of the focal adjustment <strong>selection</strong>. <strong>event</strong> I: the fact that the manner-component is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject rotates with great force and high speed. The approximate values of the force-dynamics elements 'great force' and 'high speed' are adjusted to the domain in question by means of the focal adjustment <strong>selection</strong>.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td><strong>causeless, effectless</strong></td>
</tr>
</tbody>
</table>
9.4.2.2.3 abstraction level III: hyperbole concepts  There are two modifications of the manner-component on abstraction level III.

Modification I: Modification I involves formations of many exponents of the same kind (ontologically speaking: collections) which move all over the place.

basic eventity III: (causeless motion)

L'étamine des fleurs qu’agit la lumière y monte en tournoyant en sphère de poussière, l'air y devient visible, et dans ce clair milieu on voit tourbillonner des milliers d'étincelles, d'insectes colorés, d'atomes bleus, et d'ailes qui nagent en jetant une lueur de *Dieu ! (FRANTEXT)
Désormais, je pouvais sans crainte lutter de grâce et d'élegance avec les jeunes gens qui tourbillonnaient autour de *Foedora (FRANTEXT)
Je soulevai le cadavre par la queue et de grosses mouches bleutées tourbillonnèrent dans un bourdonnement en s'échappant de la gueule où elles avaient flairé...
Le vent soufflait doucement, balayant les feuilles mortes qui tourbillonnèrent dans les jambes d'un homme.
Au reste, tous les oiseaux sont arrivés, les rossignols chantent nuit et jour, le soleil luit à merveille, les insectes ailés bourdonnent et tourbillonnent. (FRANTEXT)
Dans les jours d'orages surtout, lorsque le lourd sirocco pèse sur la plaine, et que la poussière commence à tourbillonner, alors apparaît dans sa majesté sombre la capitale du désert. (FRANTEXT)

The decompositional conceptual structure of 'tourbillonner' on abstraction level III (basic eventity III, causeless motion) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: predicate</td>
<td>\textit{eventy III}: modified manner-component</td>
<td>\textit{eventy I}: the fact that a \textit{substance}, namely 'air' or 'water' is implied governs by means of \textit{domain mapping} the interpretation that the exponents denoted by the subject are present in large numbers and in a high density, and the focus is on the exponents as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment \textit{abstraction}. The approximate values of the elements 'large numbers' and 'high density' are adjusted to the domain in question by means of focal adjustment the focal adjustment \textit{selection}. \textit{eventy I}: the fact that certain aspects of the manner-component are implied governs by means of \textit{domain mapping} the interpretation that the exponents denoted by the subject move with great force and high speed. The approximate values of the force-dynamics elements 'great force' and 'high speed' are adjusted to the domain in question by means of the focal adjustment \textit{selection}.</td>
</tr>
</tbody>
</table>

\textbf{Modification II}: Modification II involves the element that a single exponent (ontologically spoken an \textit{absolute individual}) executes a path mo-
tion and rotates at the same time.

**basic eventity III:** *(causeless motion)*

Elle dansait, elle tournait, elle *tournillonnait* sur un vieux tapis de Perse, jeté négligemment sous ses pieds (FRAN-TEXT)

Les danseurs *tournillonnent* dans une parfaite harmonie...

(http://www.blogg.org/blog-43870-date-2006-08-23.html, accessed on October 21 2007)

The decompositional conceptual structure of 'tournilloner' on abstraction level III (**basic eventity III, causeless motion**) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: subject</td>
<td><em>eventity III:</em> exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the <em>manner</em>-component on abstraction level II</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td><em>eventity III:</em> modified <em>manner</em>-component</td>
<td><em>eventity I:</em> the fact that certain aspects of the <em>manner</em>-component are implied governs by means of <em>domain mapping</em> the interpretation that the exponent either rotates or executes a path motion and additionally rotates with great force and high speed. The approximate values of the force-dynamics elements 'great force' and 'high speed' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

9.4.2.2.4 abstraction level IV: metaphorical concepts First, there are concepts which are motivated by the *manner*-component insofar as an abstract entity is conceptualized as a *substance* which forms a whirlpool.
abstract basic event: (causeless abstract motion)

...leurs regards ont des profondeurs où mon âme tourbillonne, on dirait que se sont des âmes. (FRANTEXT)
Enfermé comme dans un cercle, notre esprit tourbillonne sur lui-même, jusqu’à ce qu’une observation nouvelle, suscitant en nous de nouvelles idées, nous fasse découvrir un principe extérieur qui nous délivre du fantôme dont notre imagination est obsédée. (FRANTEXT)
Un éclat de rire tourbillonna, s’empiffra de lumière et s’en fut la main dans la main de l’obscurité tardive.
(http://www.florence.ghibellini.free.fr/SA/MDnouvelles/conscienceparallele.html, accessed on October 21 2007)
La lumière qui s’en échappa éclaira ses traits si nobles et si purs, et tourbillonna en reliefs d’or dans ses yeux tout grands ouverts.
...une clameur épouvantable s’éleva, et un vertige de destruction tourbillonna sur l’armée ivre...
(http://www.mediterranee01.net/romans/salammbo/salammbo1.html, accessed on October 21 2007)
La portière claqua sèchement, un flot d’odeurs tourbillonna dans l’air serein comme j’avancéi un premier pas.
(http://www.embruns.net/carnet/marc/nouvelles-jeux.html, accessed on October 21 2007)

The decompositional conceptual structure of ‘tourbillonner’ on abstraction level IV (abstract basic event, causeless abstract motion) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
</table>
| *inventio IV:* abstract exponent | *inventio I:* the fact that a *substance*, namely 'air' or water is implied governs by means of *domain mapping* the interpretation of the abstract exponent in terms of a *substance*. The fact that a formation, namely 'un tourbillon', is implied governs by means of *domain mapping* the interpretation that the abstract exponent denoted by the subject fictively constitutes a whirlpool-like formation. The approximate values of the element 'whirlpool-like formation' are adjusted to the domain in question by means of the focal adjustment *selection.*

*inventio I:* the fact that the *manner*-component is implied governs by means of *domain mapping* the interpretation that the abstract exponent denoted by the subject moves in an eddying fashion with great force and with high speed. The approximate values of the force-dynamics elements 'great force' and 'high speed' are adjusted to the domain in question by means of the focal adjustment *selection.*

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th><em>eventio IV:</em> fictive motion event which is motivated by the <em>manner</em>-component</th>
<th><em>causeless, effectless</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td></td>
</tr>
</tbody>
</table>

Second, there are metaphorical concepts which are motivated by the concept on abstraction level II and/or by Modification I of the hyperbole concepts since a large number of abstract entities of the same kind is considered to form a whirlpool and to move around all over the place, respectively.
CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS

abstract basic eventity: (causeless abstract motion)

Ces conjectures, si ressemblantes à des évidences, tourbillonnerent tout de suite, comme une poignée de poussière qui s'envole à un vent subit.
...s'il s'endormait un instant, les rêves les plus insensés venaient tourbillonner dans son cerveau. (FRANTEXT)

The decompositional conceptual structure of 'tourbillonner' on abstraction level IV (abstract basic eventity, causeless abstract motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity IV: abstract exponent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>eventity IV: fictive motion event which is motivated by the concept on abstraction level II and/or Modification I of the hyperbole concepts</td>
<td></td>
<td>The implications concerning eventity I and eventity I are analogous to basic eventity II and basic eventity of Modification I, respectively.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

9.4.3 Nominal concept 'bouillon', verbal concept 'bouilllonner'

eventity I and basic eventity I: The polysemous lexeme 'bouillon' is relevant here in its reading Liquide où l'on fait bouillir des aliments (légumes, viandes,…) (Le Robert Dictionnaire Historique de la langue Française, 2000); and the polysemous verb 'bouilllonner' in its reading (...) liquide qui produit des bulles par suite d'ébullition (...). There is noncircular definition between eventity I and basic eventity I.

Ontology: Within the ontological framework used here, the entity denoted by the lexeme 'bouillon' can be classified as eventity, more exactly as substance; the entity denoted by the lexeme 'bouilllonner' can be classified as eventity, more exactly as activity.

Word Formation: noun base: 'bouillon'; verbal suffix: -er; conversion; similitative
CHAPTER 9. FRENCH EXONENT-SHAPED MOTION VERBS 452

9.4.3.1 The explicature of the manner-component of the 'bouillonner'-eventity

The manner-component of the 'bouillonner'-eventity can be explicated as follows: water, namely the water of a soup, is in motion because it boils.

9.4.3.2 The decompositional structure of the 'bouillonner'-eventity on four levels of abstraction

9.4.3.2.1 abstraction level I: to move as the exponent The concept on abstraction level I is not lexicalized and ad hoc uses were not found.

9.4.3.2.2 abstraction level II: to move like the exponent On abstraction level II, water and other liquids which are in motion because they boil or are kept in motion by an external force or by external circumstances qualify.

basic eventity II: (causeless motion)

La tour grandissait, l'eau bouillonnait, un éclat tombait des nuées, le vent sifflait dans les montagnes et semblait par moments jeter des clameurs. (FRANTEXT)


Cette piscine était une source chaude dont les eaux rougeâtres bouillonnaient à des intervalles irréguliers par suite d'accumulation de gaz dans le...
(http://www.urantia.org/french/fascicules/fascicule147.html, accessed on October 21 2007)

...sur la gauche, un torrent traversé par un pont à ogive tronquée, bouillonne au fond d'un ravin, fait tourner un moulin, et couvre d'écume les pierres qui l'arrêtent. (FRANTEXT)

...à une demi-lieue d'Andernach, les deux amis marchèrent au milieu d'un profond silence, comme si la guerre ne dévastait pas ce beau pays, et suivirent un chemin pratiqué par les chèvres à travers les hautes murailles de granit bleuté entre lesquelles le Rhin bouillonne. (FRANTEXT)
The decompositional conceptual structure of 'bouillonner' on abstraction level II (basic event I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory II exponents other than the exponent denoted by the noun base which qualify for the manner-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
</table>
event II: unmodified manner-component |

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

9.4.3.2.3 abstraction level III: hyperbole concepts

There is one modification of the manner-component on abstraction level III.

Modification I: Modification I involves a large number of exponents of the same kind (ontologically speaking: collections) which are considered to move around all over the place.

basic event III: (causeless motion)

Tout au long de l'année, Paris bouillonne et s'agite dans un mouvement perpétuel que seuls les parisiens arrivent à comprendre et qui séduit le monde...

Les palais se désardent, les bassins croupissent, et, les universités où bouillonnaient les jeunes polémiques, on n'entend plus monter que des psalmodes de...

The decompositional conceptual structure of 'bouillonner' on abstraction level III (basic event III, causeless motion) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>event</strong> III: <strong>manner</strong>-component</td>
<td><code>inventory III</code>: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the <strong>manner</strong>-component on abstraction level II, or a lexeme denoting a place</td>
<td><strong>inventory I</strong>: the fact that a <strong>substance</strong>, namely 'un bouillon', is implied governs by means of <strong>domain mapping</strong> the interpretation that the exponent denoted by the subject is present in large numbers and in a high density and the focus is on the exponents as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment <strong>abstraction</strong>. This is also the case when the subject position is occupied by a mass term. The approximate values of the elements 'large numbers' and 'high density' are adjusted to the domain in question by means of the focal adjustment <strong>selection</strong>. When the subject position is occupied by an expression denoting a place, this interpretation is reached by means of <strong>domain highlighting</strong>, i.e. the place is interpreted as being full of a large number of densely packed exponents. <strong>event</strong> I: the fact that the <strong>manner</strong>-component is implied governs by means of <strong>domain mapping</strong> the interpretation that the exponents denoted by the subject move all over the place dynamically. The approximate values of the force-dynamics element 'dynamically' are adjusted to the domain in question by means of the focal adjustment <strong>selection</strong>.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>inventory III</code>: modified <strong>manner</strong>-component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS 455

L-Subject-alternation:

Il est plutôt tombé sur une „terre nouvelle” dont les eaux bouillonnaient de poissons.
(http://www1.radio-canada.ca/actualite/semaineverte/ColorSection/pêche/040314/morne.shtml, accessed on October 21 2007)

L’été y est généreux, et sous les rayons du soleil de minuit, les côtes bouillonnaient de vie durant les 4 mois de juin, juillet, août et septembre.
(http://www.s8-n.com/, accessed on October 21 2007)

Particulièrement apprécié pour sa richesse culturelle, ce quartier des commerces et des finances bouillonne de monde la journée.

The decompositional conceptual structure of 'bouillonner' on abstraction level III (L-Subject-alternation) is as follows:

<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>background: location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammatical relation: predicate</td>
<td>entity III: modified manner-component</td>
</tr>
<tr>
<td>Grammatical relation: de-phrase</td>
<td>inventory III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify the manner-component on abstraction level II</td>
</tr>
<tr>
<td>Valency</td>
<td>exponent and background present</td>
</tr>
</tbody>
</table>

9.4.3.2.4 abstraction level IV: metaphorical concepts First, there are metaphorical concepts which are motivated by the manner-component insofar as abstract entities are conceptualized as substances which are in motion.

abstract basic eventity: (causeless abstract motion)
J’ai assisté à bien des Congrès, mais je n’en ai jamais vu où *bouillonnaient* tant de passions et de sentiments contraires et où régnait tant de calme.

(\url{http://www.marxists.org/francais/lafargue/works/1910/00/lafargue_19100000.htm}, accessed on October 21 2007)

Quand l’amour jalous *bouillonne* dans nos têtes, quand notre coeur se gonfle et s’emplit de tempêtes, qu’importe ce que peut un nuage des airs nous jeter en passant de tempête et d’éclairs ? (FRANTEXT)

Et en parallèle, sur les rivalités et les haines longuement recueillies qui *bouillonnent* dans la marmite culturelle des petits pays enclavés.

(\url{http://www.culturactif.ch/ecrivains/maccagno.htm}, accessed on October 21 2007)

The decompositional conceptual structure of ‘bouillonner’ on abstraction level IV (*basic abstract entity, causeless abstract motion*) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory IV: abstract exponent</td>
<td>inventory I: the fact that a substance, namely 'un bouillon', is implied governs by means of domain mapping the interpretation of the abstract exponent denoted by the subject in terms of a substance. When the subject is occupied by a lexeme denoting a place, this interpretation is reached by means of domain highlighting, i.e. the interpretation that the place is full of an abstract exponent which is conceptualized as a substance. inventory I: the fact that the manner-component is implied governs by means of domain mapping the interpretation that the abstract exponent denoted by the subject is in motion like boiling water. The approximate values of the element 'in motion like boiling water' are adjusted to the domain in question by means of the focal adjustment selection.</td>
<td></td>
</tr>
</tbody>
</table>

| grammatical relation: predicate | event IV: fictive motion event which is motivated by the manner-component | causeless, effectless |

**I-Subject-alternation:**

Certains *bouillonnaient* d’impatience à l’idée de voir l’aboutissement de ce qu’ils avaient vu lors de la visite des ateliers de Vénéllle.
(http://www.maignan.info/economie%20locale.html, accessed on October 21 2007)

A l’intérieur du Parlement, les membres du Front Patriotique Rwandais *bouillonnaient* de rage et d’impatience...
(http://www.icrc.org/Web/fre/sitefre0.nsf/htmlfall/5XDJPS, accessed on October 21 2007)
The decompositional conceptual structure of 'bouillonner' on abstraction level III (L-Subject-alternation) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>background: location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td>eventity IV: fictive motion event which is motivated by the manner-component</td>
<td>The implications concerning eventity I and eventity I are analogous to basic eventity IV.</td>
</tr>
<tr>
<td>grammatical relation: de-phrase</td>
<td>eventity IV: abstract exponent</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>exponent and background present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

Second, there are concepts which are motivated by the hyperbole concept insofar as many abstract entities of the same kind (ontologically spoken: a collection) are conceptualized as moving all over the place.

**abstract basic eventity:** (causeless abstract motion)

Plusieurs projets bouillonment dans l'esprit de Maxime Laporte.  
(http://www.usherbrooke.ca/liaison_vol38/n03/a_mexique.html, accessed on October 21 2007)

Vue de là, Liège est une marmite, dans laquelle les ingrédients - les gens, les lieux, l'histoire... - bouillonment et se mélangent.  

Toujours cette crainte de ne pas traduire correctement les innombrables idées qui bouillonment sous son crâne, il accompagne son discours de grand gestes...  
(http://www4.geometry.net/celebrities/burton_tim_page_no_6.html, accessed on October 21 2007)

On pourrait parler de temps en temps de la situation en Amérique où les Indiens du nord au sud bouillonnt.  
**CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS**

The decompositional conceptual structure of 'bouillonner' on abstraction level IV (*abstract basic entity, causeless abstract motion*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventy IV</em>: abstract exponent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventy IV</em>: fictive motion event which is motivated by Modification I of the hyperbole concepts</td>
<td></td>
<td>The implications concerning <em>inventy I</em> and <em>eventy I</em> are analogous to <em>basic eventy</em> of Modification I.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

**L-Subject-alternation:**

La tête de cet inventeur bouillonnait de projets et des spéculations que l'alliance avec *Mathéus pouvait seule féconder.*

(FRANTEXT)

Les événements que je laisse passer sans ressenti particulier sont sans doute sans importance même si des gens bouillonnent d’émotions en en parlant.


The decompositional conceptual structure of 'bouillonner' on abstraction level IV (*L-Subject-alternation*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>background: <em>location</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>eventy IV</em>: fictive motion event which is motivated by Modification I of the hyperbole concepts</td>
<td></td>
<td>The implications concerning <em>inventy I</em> and <em>eventy I</em> are analogous to <em>basic eventy</em> of Modification I.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: de-phrase</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventy IV</em>: abstract exponent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>exponent and background present</td>
<td></td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>
9.4.4 Nominal concept 'ruisseau', verbal concept 'ruisseler'

*inventity I and basic eventity I:* The polysemous lexeme 'ruisseau' is of interest here in its reading (...) *un petit cours d’eau peu profond et de faible débit* (Le Robert Dictionnaire Historique de la langue Française, 2000), and the polysemous lexeme 'ruisseler' in its reading *couler sans arrêt en formant des ruisseaux.* (Le Robert Micro, 1998). There is circular definition between *inventity I* and *basic eventity I*.

**Ontology:** Despite the fact that the nominal and the verbal concept imply each other, the concept denoted by the noun is ontologically not hybrid. Thus within the ontological framework used here, the entity denoted by the lexeme 'ruisseau' can be classified as *inventity*, more exactly as *substance*. (A classification as *absolute individual* would also be possible; the classification as *substance* is, however, justified because it is the flowing mass of water which is of importance for the verbal concept); the entity denoted by the lexeme 'ruisseler' can be classified as *eventity*, more exactly as *activity*.

**Word Formation:** noun base: ‘ruisel’, ‘russel’ precursors of ‘ruisseau’; verbal suffix -er; conversion; simulative

### 9.4.4.1 The explication of the manner-component of the 'ruisseler'-eventity

The *manner*-component of the *ruisseler-eventity* can be explicated as follows: the water which comprises a stream flows.

### 9.4.4.2 the decompositional conceptual structure of the 'ruisseler'-eventity on four levels of abstraction

#### 9.4.4.2.1 abstraction level I: to move as the exponent

**basic eventity I:** *(causeless motion)*

Parfois les rivières *ruissellent* et roulent en roulant.
(http://www.leahi.net/french/files/III-09%20R.doc, accessed on October 21 2007)

Les fleuves de la côte de Tetuan, alimentés par les aquifères de la dorsale calcaire *ruissellent* en été, même si les débits
The decompositional conceptual structure of 'ruisseler' on abstraction level I (basic eventity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation:</td>
<td><em>eventity I:</em> exponent denoted by the noun base</td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical relation:</td>
<td><em>eventity I:</em> manner-component</td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

9.4.4.2.2 abstraction level II: to move like the exponent Water and liquids qualify here.

**basic eventity II:** (causeless motion)

...l’eau *ruisselle* sur leurs corps lisses comme sur les statues de bronze des fontaines. (FRANTEXT)

La baliste lance des pierres, l’huile *ruisselle* sur les boucliers polis, on monte les escaliers, on se débat, on tue, les épées dans l’air font des cercles rouges. (FRANTEXT)

De ses grands yeux *ruissellaient* jour et nuit deux larmes sur la dalle, qu’elles usaient. (FRANTEXT)

...et mes pleurs vibrants *ruissellent* sur ma corde déjà détendue. (FRANTEXT)

...aussi la sueur *ruisselait* - elle sur son visage pendant qu’il travaillait à enfler un crescendo de tous les faibles moyens que l’ingrat instrument mettait à son service: il avait trépigné, soufflé, hurlé. (FRANTEXT)

The decompositional conceptual structure of 'ruisseler' on abstraction level II (basic eventity II, causeless motion) is as follows:
### CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>grammatical relation:</strong> subject</td>
<td><em>inventity II:</em> exponents other than exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of <em>inventity I</em></td>
<td></td>
</tr>
<tr>
<td><strong>grammatical relation:</strong> predicate</td>
<td><em>inventity II:</em> unmodified manner-component with the values of the manner elements being readjusted</td>
<td><em>inventity I:</em> the fact that a formation, namely 'un ruisseau', is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject is present in a long, narrow formation and in long, narrow formations, respectively and constitutes a small to medium total quantity. The approximate values of the elements 'long, narrow formation' and 'small to medium total quantity' are adjusted to the domain in question by means of the focal adjustment selection. <em>eventity I:</em> the fact that the manner-component is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject flows with little force, but constantly. The approximate values of the elements 'little force' and 'constantly' are adjusted to the domain in question by means of the selection.</td>
</tr>
<tr>
<td><strong>valency</strong></td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

**L-Subject-alternation:**

...leurs dos noirs *ruisselent* d’eau, leurs dents blanches sourient. (FRANTEXT)
The decompositional conceptual structure of 'ruiseler' on abstraction level II (L-Subject-alternation) is as follows:

<table>
<thead>
<tr>
<th>Grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>background: <em>location</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The implications concerning *entity I* and *entity II* are analogous to basic *entity II*.

<table>
<thead>
<tr>
<th>Grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entity II</em>: unmodified manner-component with the values of the manner elements being readjusted</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grammatical relation: de-phrase</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>entity II</em>: exponents other than the exponent denoted by the noun base which qualify for the manner-component, with certain properties of the exponent being readjusted in terms of <em>entity I</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>exponent and background present</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

9.4.4.2.3 avoidance level III: hyperbole concepts There are two modifications of the manner-component on abstraction level III.

Modification I: Modification I involves formations of many exponents of the same kind (ontologically speaking: *collections*) which execute a path motion. There are no manner restrictions except for force-dynamics restrictions.

*basic entity III*: (causeless motion)

Et en *ruissela* les objets les plus hétéroclites: deux rubans, trois cailloux, un dinosaure en plastique, un bout de crayon, un coquillage, deux biscuits.
Les légions *ruissellent* sans bruit, Marchent librement, en bon ordre.

The decompositional conceptual structure of 'ruisseler' on abstraction level III (*basic eventity III, causeless motion*) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
</table>
| **event** III: modified manner-component | *inventy III*: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II | *inventy I*: the fact that a *substance*, namely 'water', is implied governs by means of *domain mapping* the interpretation that the exponents denoted by the subject are present in large numbers and in a high density and the exponents involved are conceptualized as a whole. This conceptualization can be attributed to the focal adjustment *abstraction*, i.e. a higher level of schematicity is chosen. The fact that a formation, namely 'un ruisseau', is implied governs by means of *domain mapping* the interpretation that the exponents denoted by the subject constitute a small to medium total quantity and are present a long and narrow formation and in long, narrow formations, respectively. The approximate values of the elements 'large numbers', 'high density', 'small to medium total quantity' and 'long and narrow formation' are adjusted to the domain in question by means of the focal adjustment *selection*.  
*event**y I*: the fact that the manner-component is implied governs by means of *domain mapping* the interpretation that the exponents denoted by the subject execute a path motion together with constancy and in a smoothly flowing fashion. The approximate values of the elements 'with constancy' and 'in a smoothly flowing fashion' are adjusted to the domain in question by means of the focal adjustment *selection*. |

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>event</strong> III: modified manner-component</td>
<td><em>causeless, effectless</em></td>
<td></td>
</tr>
</tbody>
</table>

valency | only exponent present |
I-Subject-alternation:

La rivière neuve n’est pas très large ni profonde mais ruiselle de poissons...
La page ruiselle de monde, de vieilles, de filles.
(http://www.liberation.fr/culture/sortir/214934.FR.php, accessed on October 21 2007)

The decompositional conceptual structure of ‘ruisseler’ on abstraction level III (I-Subject-alternation) is as follows:

<table>
<thead>
<tr>
<th>Grammatical relation</th>
<th>Explicit</th>
<th>Implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>background: location</td>
<td></td>
</tr>
<tr>
<td>Predicate</td>
<td>eventity III: modified manner-component</td>
<td>The implications concerning eventity I and eventity II are analogous to basic eventity of Modification I.</td>
</tr>
<tr>
<td>De-phrase</td>
<td>eventity III: exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II</td>
<td></td>
</tr>
<tr>
<td>Valency</td>
<td>exponent and background present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

Modification II: The second modification is a case of fictive motion. The extension of objects is conceptualized as a fictive path motion.

basic eventity III: (causeless motion)

Au centre de la haute façade gothique du Palais, le grand escalier, sans relâche remonté et descendu par un double courant, qui, après s’être brisé sous le perron intermédiaire, s’épandait à larges vagues sur ses deux pentes latérales, le grand escalier, dis-je, ruisselait incessamment dans la place comme une cascade dans un lac. (FRANTEXT)
Sa tête se renversait un peu en arrière; ses cheveux entièrement dénoués, ses épais et souples cheveux ruisaient sur ses épaules...

The decompositional conceptual structure of 'to stream’ on abstraction level III (basic eventity III, causeless motion) is as follows:
### CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>entity III:</strong> exponents other than the exponent denoted by the noun base and other than the exponents which qualify for the <em>manner</em>-component on abstraction level II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>entity III:</strong> modified <em>manner</em>-component</td>
<td><strong>entity I:</strong> the fact that the exponent 'stream' is implied governs by means of domain mapping the interpretation that the extension of the exponent denoted by the subject is long. Further, the fact that the surface structure of flowing water is implied governs in certain cases, i.e. in the case of 'hair' or 'cloth' by means of domain mapping a certain conceptualization of the appearance of the exponent’s surface structure, e.g. the interpretation that wavy hair is rippling down from the head. The approximate values of the elements 'long extension' and 'surface structure like flowing water' are adjusted to the domain in question by means of the focal adjustment <em>selection.</em> <strong>entity I:</strong> the fact that certain aspects of the <em>manner</em>-component are implied governs by means of domain mapping an implication of movement, e.g. that hair is flowing over the contours of the body.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>
9.4.4.2.4 abstraction level IV: metaphorical concepts  Metaphorical concepts are on one hand motivated by the manner-component insofar as an abstract entity is conceptualized as a liquid which flows.

abstract basic eventity: (causeless abstract motion)

Ce désert plein d’accidents, où parfois les rayons du soleil réfléchis par les eaux, par les sables, blanchissent le bourg de Batz, et ruissellent sur les toits de Crosic, en répandant un éclat impitoyable, occupait alors Camille des jours entiers. (FRANTEXT)

...la désolation ruisselle sur ma tête, la folie m’arrive. (FRANTEXT)

Mais dites-moi, au nom du ciel, que devient donc, à ces heures terribles, cette âme, cette grande âme où la poésie ruisselle, où l’enthousiasme déborde et dont le feu nous gagne et nous entraîne au-delà de tout ce que nous avions senti? (FRANTEXT)

...lorsque élévant les yeux à la voûte des bois, elle vit un bulbul à la liquide voix, qui, posé sur la branche où son nid se balance, de son chant qui ruisselle enchantait le silence, tandis que ses petits paraissaient s’essayer, en écoutant son hymne, à le balbutier. (FRANTEXT)

Tout à coup la lumière amoureuse d’un oeil ruissela sur les yeux inattentifs de Lucien, en trouvant le rideau du théâtre. (http://web.fu-berlin.de/phln/phln30/p30e2.htm, accessed on October 21 2007)

The decompositional conceptual structure of ‘ruisseller’ on abstraction level IV (abstract basic eventity, causeless abstract motion) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory IV: abstract exponent</td>
<td>inventory I: the fact that a substance, namely 'water', is implied governs by means of domain mapping the interpretation of the abstract exponent denoted by the subject in terms of a substance. The fact that a formation, namely a 'ruisseau', is implied governs by means of domain mapping the interpretation that the abstract exponent is fictively present in a long, narrow formation and in long, narrow formations, respectively and constitutes a small to medium total quantity. The approximate values of the elements 'long, narrow formation' and 'small to medium quantity' are adjusted to the domain in question by means of the focal adjustment selection.</td>
<td>inventory I: the fact that the manner-component is implied governs by means of domain mapping the interpretation that the exponent denoted by the subject fictively flows with little force, but constantly. The approximate values of the elements 'with little force' and 'constantly' are adjusted to the domain in question by means of the focal adjustment selection.</td>
</tr>
</tbody>
</table>

| grammatical relation: predicate | eventity IV: fictive motion event which is motivated by the manner-component | causeless, effectless |

| valency | only exponent present |

**L-Subject-alternation:**

Si le désir pouvait faire suer l'argent des murs ou le tirer des entrailles de la terre, le lambris <em>cuit ruisselé</em> de louis,
le sol se fut entrouvert et lui eût envoyé une bouffée d’or.
(FRANTEXT)
...il ruisselait de tristesse et de désespoir comme l’automne qui fait tomber les feuilles.

The decompositional conceptual structure of ‘ruisseler’ on abstraction level IV (L-Subject alternation) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical relation: predicate</td>
<td>eventity IV: fictive motion event which is motivated by the manner-component</td>
<td>The implications concerning eventity I and eventity IV are analogous to basic eventity IV.</td>
</tr>
<tr>
<td>grammatical relation: de-phrase</td>
<td>eventity IV: abstract exponent</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>exponent and background present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

On the other hand, there are abstract concepts which are motivated by the hyperbole concept insofar as many abstract entities of the same kind are considered to fictively execute a path motion.

abstract basic eventity: (causeless abstract motion)

Un jour Mme Evangélista put passer fière dans son brillant équipage en le voyant à pied dans les Champs-élysées, et l’accabler d’un regard d’où ruisselèrent les étincelles du triomphe. (FRANTEXT)

...était la seule idée qu’elle exprimait au milieu des torrents d’idées qui ruisselaient dans sa cervelle en la ravageant. (FRANTEXT)

Il existe là pour les yeux les moins artistes et les moins exercés un ravissant contraste entre cette façade où les merveilles ruissellent et la façade intérieure du château de Louis XII, composée au rez-de-chaussée de quelques arcades d’une légère vaporeuse soutenues par des colonnettes qui reposent en bas sur des tribunes élégantes... (FRANTEXT)
CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS

De la rue de la Victoire au boulevard, voici ce qu'il me dit, 
si toutefois les phrases que souffre la typographie parmi les 
plus violentes injures peuvent représenter les atroces paroles, 
les venimeuses pensées qui ruisselèrent de sa bouche comme 
une cascade échappée de côté dans un grand torrent. (FRAN-
TEXT)
Rah, damned, je viens de découvrir qu'Olivier a refait le site 
DotCleer avec une carte de Sam, l'homme sur qui ruissellent 
les compliments comme s'il était recouverte de Téflon,
(http://www.standblog.org/blog/post/2004/04/06/93113428-faire-des-
choses-faciles-cest-dur, accessed on January 1 2008)
...les merveilles ruissellent et la façade intérieure du château 
de Louis CM des comtes de Blois dont la façade était presque 
en harmonie avec ...
(http://www.ancilla.unice.fr/~brunet/BALZAC/F/F12566.htm, accessed 
on October 21 2007)

The decompositional conceptual structure of 'ruisseler' on abstraction level
IV (abstract basic eventity, causeless abstract motion) is as follows:

| grammatical | explicit                           | implicit                           |
| relation:   | *eventity IV*: abstract exponent   |                                   |
| subject     |                                   |                                   |
| grammatical | *eventity IV*: fictive motion event | The implications concerning *eventity I* and |
| relation:   | which is motivated by Modification  | *eventity I* are analogous to basic eventity of |
| predicate   | I of the hyperbole concepts        | Modification I.                   |
| valency     | only exponent present              | causeless, effectless             |

**L-Subject-alternation:**

Elle était coiffée de fleurs, de diamants et de plumes comme 
une jeune femme, et sa robe ruisselait de pierriers. (FRAN-
TEXT)
Décidément, la Martinique ruisselle de merveilleux trésors, 
qu'il faut sans hésiter se donner la peine de découvrir...
(http://www.ymgui.com/martinique/Serv07.html, accessed on Octo-
ber 21 2007)
La communauté affiliée au logiciel libre est décidément bien 
dynamique et ruisselle d'idées pour le moins originales pour 
faire connaître ses produits,
(http://www.generation-nt.com/firefox-friends-wall-mozilla-actualite-15 
467.html, accessed on January 1 2008)
The decompositional conceptual structure of 'russeller' on abstraction level IV (*L-Subject alternation*) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>background: <em>location</em></td>
<td></td>
<td>The implications concerning <em>inventivity I</em> and <em>eventivity I</em> are analogous to basic <em>eventivity</em> of Modification I.</td>
</tr>
<tr>
<td>grammatical relation: predicate</td>
<td><em>eventivity IV</em>: fictive motion event which is motivated by Modification I of the hyperbole concepts</td>
<td></td>
</tr>
<tr>
<td>grammatical relation: de-phrase</td>
<td><em>inventivity IV</em>: abstract exponent</td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>exponent and background present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>

### 9.5 Formations II

#### 9.5.1 Nominal concept 'parade', verbal concept 'parader'

**inventivity I and basic inventivity I**: The polysemous lexeme 'parade' is of interest here in its reading *Cérémonie militaire où les troupes en grande tenue défilent* (Le Robert Micro, 1998); The concept to move as the exponent denoted by the noun base is not lexicalized; it is explicated in 9.5.1.1. There is circular definition between *inventivity I* and *basic inventivity I*.

**Ontology**: The entity denoted by the lexeme 'parade' is ontologically hybrid, it has *inventivity* character (in terms of a *collection*) as far as the formation consisting of people is concerned, and it has *eventivity* character (in terms of an *activity*) as far as the implied motion concept is concerned. The entity denoted by the lexeme 'parader' can be classified as an *eventity*, more exactly as an *activity*.

**Word Formation**: noun base: 'parade'; verbal suffix: -er; simitative
9.5.1.1 The explicative of the manner-component of the 'parader'-eventity

The manner-component of the 'parader'-eventity involves a parade’s execution of a path motion. There are manner elements present in that the exponents involved march and display officiality and military and political power.

9.5.1.2 The decompositional conceptual structure of the 'parader'-eventity on four levels of abstraction

9.5.1.2.1 abstraction level I: to move as the exponent

**basic eventity I: (causeless motion)**

...à Beaujeu fut planté un grand peuplier coiffé d’un bonnet rouge et du drapeau national; millé deux cents gardes nationaux paradèrent à Villefranche...
(http://www.angelfire.com/az/univers/arbres.html, accessed on October 21 2007)

The decompositional conceptual structure of 'parader' on abstraction level I (basic eventity I, causeless motion) is as follows:

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>eventity I</strong>: exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>manner-component</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td>causeless, effectless</td>
<td></td>
</tr>
</tbody>
</table>

9.5.1.2.2 abstraction level II: to move like the exponent There are no concepts on abstraction level II, neither lexicalized concepts nor ad hoc uses, because only military parades qualify for the manner-component of the 'parader'-eventity.

9.5.1.2.3 abstraction level III: hyperbole concepts There are three modifications of the manner-component on abstraction level III.
Modification I: Modification I involves formations of people parading in public and official but nonmilitary scenarios.

basic eventity III: (causeless motion)

Chaque année, le 12 juillet, à Toronto et ailleurs au Canada anglais, les Loyalistes Orangistes (ce qui revient au même) paradent dans les rues en ténues de...
(http://www.vigile.net/archives/ds-histoire/docs/02-5-10-sauve-nf.html, accessed on October 21 2007)

Parade de l’activité d’accueil. Les écoliers paradent dans les rues.
(http://www.station05.cma.siteweb.ca/fr/page.php?plss=2153760744&fk=154677462, accessed on October 21 2007)

Petits et grands paradent dans les rues et font la fête toute la journée. Le Carnaval est rythmé par les concours internationaux de sculpture sur glace.

The decompositional conceptual structure of ‘parader’ on abstraction level III (basic eventity III, causeless motion) is as follows:
<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>inventory III</em>: exponents other than the exponent denoted by the noun base</td>
<td><em>eventity III</em>: modified manner-component</td>
<td><em>inventory I</em>: The fact that a <em>collection</em>, namely the usually large number of people who participate in parades, is implied governs by means of <em>domain mapping</em> the interpretation that the exponents denoted by the subject are present in relatively large numbers and in a high density. The fact that a formation, namely the exponent 'parade', is implied governs by means of <em>domain mapping</em> the interpretation that the exponents denoted by the subject constitute a parade-like formation and the focus is on the formation as a whole, i.e. a higher level of schematicity is chosen by means of the focal adjustment <em>abstraction</em>. The approximate values of the elements 'large numbers', 'high density' and 'parade-like formation' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
<td><em>eventity I</em>: The fact that certain aspects of the manner-component are implied governs by means of <em>domain mapping</em> the interpretation that the exponents denoted by the subject display something, and may govern the interpretation that they are dressed and walk in a way which underlines their desire to display something. The nature and approximate values of the elements 'display something' and 'be dressed and/or walk in a way which underlines the desire to display something' are adjusted to the domain in question by means of the focal adjustment <em>selection</em>.</td>
</tr>
<tr>
<td>valency</td>
<td></td>
<td>only exponent present</td>
<td><em>causeless, effectless</em></td>
</tr>
</tbody>
</table>
Modification II: Modification II is used to refer to people walking in a formation within a scenario which is not official, not military and not necessarily public. The verb 'parader' is often used here in an evaluating manner, as the speaker implies that the people involved unjustifiably see themselves in a position which is characterized by officiality, political power, or the potential to exert political influence.

basic entity III: (causeless motion)

*Broadway, c'est la voie triomphale par où rentrent les armées et les généraux victorieux, où paradent les troupes prohibitionnistes, les loges maçonniques et ces sociétés d'assurances mutuelles, si nombreuses en *Amérique, qui portent des noms d'animaux sauvages et déguisent leurs membres de déroques théâtrales. (FRANTEXT)


The decompositional conceptual structure of 'parader' on abstraction level III (basic entity III, causeless motion) is as follows:
CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th>grammatical relation: subject</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory III: exponents other than the exponent denoted by the noun base</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>grammatical relation: predicate</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>inventory III: modified manner-component</td>
<td></td>
<td>The implications concerning inventory I and certain aspects of the manner-component are analogous to basic event- entity of Modification I.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>valency</th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only exponent present</td>
<td></td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

Modification III: Modification III involves a single exponent’s parading or strutting in order to express power or officiality.

**basic eventity III: (causeless motion)**

Les mâles se pavanèrent et paraderent pour montrer leur puissance.
(http://www.lejardindestivres.fr/principe2-2.htm, accessed on October 21 2007)

Puis, un samedi fort attendu de novembre, le Père Noel paradait dans les rues de la ville et allait prendre sa place dans son véritable royaume.

Le maire, Ray Nagin, paradait en tête d’un Jazz funéraire (ces parades funéraires typiques de la Nouvelle Orléans) à la mémoire des victimes de Katrina.

The decompositional conceptual structure of ’parader’ on abstraction level III (basic eventity III, causeless motion) is as follows:
### CHAPTER 9. FRENCH EXPONENT-SHAPED MOTION VERBS

<table>
<thead>
<tr>
<th></th>
<th>explicit</th>
<th>implicit</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical</td>
<td><strong>entity III</strong>: exponents other than the exponent denoted by the noun</td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td>base</td>
<td></td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammatical</td>
<td><strong>entity III</strong>: modified manner-component</td>
<td></td>
</tr>
<tr>
<td>relation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>predicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>valency</td>
<td>only exponent present</td>
<td>causeless, effectless</td>
</tr>
</tbody>
</table>

#### 9.5.1.2.4 abstraction level IV: metaphorical concepts

There are no lexicalized concepts on abstraction level IV which involve the aspect of motion and *ad hoc* uses were not found.
Chapter 10

Conclusion

The starting point of this investigation was Talmy’s *Lexicalization patterns: semantic structure in lexical forms* (Talmy, 1985). Talmy examined and compared the coding of motion events in typologically heterogenous languages and found out that, from an ontological point of view, in addition to the superconcept of motion, four further components are of importance. These are:

a) the entity which moves or is moved (Talmy calls this entity *figure*; sometimes it is called *theme*. In this investigation, the entity which moves or is moved has been called *exponent*).

b) the *ground* against which the exponent moves or is moved.

c) the *path* along which the exponent moves or is moved.

d) the *manner* and the *cause* of the motion.

<table>
<thead>
<tr>
<th>the superconcept:</th>
<th>motion</th>
</tr>
</thead>
<tbody>
<tr>
<td>the exponent of motion</td>
<td>exponent</td>
</tr>
<tr>
<td>the ground of motion</td>
<td>ground</td>
</tr>
<tr>
<td>the path of motion</td>
<td>path</td>
</tr>
<tr>
<td>the manner of motion</td>
<td>manner, cause</td>
</tr>
</tbody>
</table>

Talmy found that natural languages tend to cocode the superconcept of motion and exactly one further component in the verb root. The verb root cocodes the superconcept of motion and either *manner/cause, path, or exponent*. (The cocoding of *motion* and *ground* seems to be less favored insofar as it does not constitute a major lexicalization pattern as the cocodings of
CHAPTER 10. CONCLUSION

motion and manner/cause, motion and path and motion and exponent do). The components which are not coded in the verb root are coded in other parts of the sentence, as in a prepositional phrase or a clause.

In the present investigation, exponent-shaped motion verbs in German, English and French, i.e. motion verbs which code the superconcept of motion and the exponent of motion in the verb root, were further examined.

It has been argued that the question of which verbs belong to the group of exponent-shaped motion verbs concerns the relationship of the verb and the corresponding noun insofar as the concept denoted by the noun has to be conceptually primary and the concept denoted by the verb has to be secondary. The group of verbs which is doubtless the core of exponent-shaped motion verbs consists of verbs denoting a concept of motion which are derived from a noun denoting the exponent of motion (e.g. German: Ei/etern, Robbe/robben, Vagabund/vagabundieren; English: snake/to snake; French: papillon/papilloner, fourmi/fourmiller). In these cases the verb is conceptually based on the noun, both from a diachronic and a synchronic point of view. The meaning of these verbs is, roughly: to move the way in which the exponent denoted by the noun base moves or typically moves.

It has been argued that, in addition to this group of verbs, there is another group of verbs which may also be classified as exponent-shaped motion verbs. This is a group of motion verbs which also denotes the way in which the exponent denoted by the corresponding noun moves or typically moves, but, diachronically, the noun is derived from the verb by means of conversion. This means that the direction of derivation is not overtly coded. Consider, for example, the English noun-verb pairs ’spray’/’to spray’ (diachronically, the verb is derived from the noun) and ’spurt’/’to spurt’ (diachronically, the noun is derived from the verb). In both cases the meaning of the verb is: to move as, or cause to move the water formation denoted by the noun in a certain way. The meaning of both nouns is: a certain water formation which moves or is caused to move in a certain way, namely the way denoted by the verb. It has been suggested that the classification of these verbs as exponent-shaped motion verbs depends on whether or not present-day speakers have the intuition that the verb is conceptually based on the noun. The question of whether verbs like ’to spurt’ can also be classified as exponent-shaped motion verbs is left to further investigation.

This investigation covers the core of exponent-shaped motion verbs, i.e. denominal verbs which denote a motion concept, the source of which is either an exponent’s way to move or an exponent’s typical way to move.
The chart below presents the fifty-three verbs found in the three languages denoting a concept of motion which is derived from a noun denoting the exponent of motion. As the chart shows, the exponents 'Schaukel' (swing), 'Wippe' (seesaw) and 'seesaw' were included in this investigation; one could object that this is not exponent-shaped motion, but instrument-shaped motion. This is true for the literal reading. These exponents have been included here because they gave rise to motion concepts which do not depend on the 'Schaukel', 'Wippe or 'seesaw as instruments.

The following verbs were found in the three languages examined:

<table>
<thead>
<tr>
<th>groups of exponents</th>
<th>German</th>
<th>English</th>
<th>French</th>
</tr>
</thead>
<tbody>
<tr>
<td>geometrical bodies</td>
<td>rollen, kugeln, eiern</td>
<td>to roll</td>
<td></td>
</tr>
<tr>
<td>moved objects</td>
<td>schaukeln, wippen, sich wiegen, pendeln, kreisen</td>
<td>to seesaw, to shuttle</td>
<td>balancer</td>
</tr>
<tr>
<td>animals</td>
<td>sich schlängeln, robben, wieseln, kreiben, hechten</td>
<td>to snake, to worm</td>
<td>fourmiller, papillonner, serpenter</td>
</tr>
<tr>
<td>social types</td>
<td>vagabundieren, pilgern</td>
<td></td>
<td>vagabonder</td>
</tr>
<tr>
<td>formations I</td>
<td>tropfen, stürmen, wirbeln, strömen</td>
<td>to spray, to storm, to gust, to billow, to stream, to eddy</td>
<td>gutter, tourbillonner, bouillonner, ruiseler</td>
</tr>
<tr>
<td>formations II</td>
<td>paradieren</td>
<td>to throng, to flock, to herd, to parade, to swarm</td>
<td>parader</td>
</tr>
<tr>
<td>rainfall, snowfall, hail</td>
<td>regnen, hageln, schneien</td>
<td>to rain, to hail, to snow, to sleet</td>
<td></td>
</tr>
</tbody>
</table>
First, it is shown here that the vast majority of exponent-shaped motion verbs in German, English and French examined in this investigation are manner verbs, i.e., they cocode the component motion and a manner-component (e.g., to snake, to worm). This means that the verb does not imply that the exponent denoted by the noun base is in motion; the exponent of motion has to be coded explicitly. A small group of verbs, (the German verbs 'tropfen', 'stürmen', 'regnen', 'hageln', 'schneien', the English verbs 'to storm', 'to gust', 'to rain', 'to hail', 'to snow', 'to sleet' and the French verb 'gutter') differs semantically from the Atsugewi verb roots proposed by Talmey in cocoding three components instead of two in the verb root. These three components are: the component motion, the component exponent and a manner-component. This holds true also for the two verbs 'to spit' (eject saliva forcibly from one's mouth: OED, 2002) and, as mentioned above, the verb 'to rain' (rain falls: OED, 2002), which Talmey gives as examples for English verb roots cocoding the component's motion and exponent (Talmey, 1985:73). These two verbs also cocode, in addition to the components motion and exponent, a third component, a manner-component. Here, the verb implies that the exponent denoted by the noun base is in motion; the exponent of motion does not have to be coded explicitly.

The Atsugewi verb roots proposed by Talmey cocode the component motion and the component exponent so that their meaning can be paraphrased as any movement which is executed by the exponent which qualifies for the category of exponents established by the verb root.

As far as the manner-component is concerned, it is proposed here that the verbs in question can be divided into two subgroups, namely a group with circular definition between the noun and the corresponding verb, i.e. the meaning of the noun is defined by the meaning of the verb and vice versa, and a group with noncircular definition between the noun and the corresponding verb, i.e. the meaning of the verb is defined by the meaning of the noun, but the noun's definition is not based on the meaning of the verb. As far as verbs with circular definition are concerned, there are, on one hand, cases in which the noun is ontologically hybrid: it has entity-character (the term entity is shorthand for "individuals and other entities", Zaeffferer, 2007:202) as far as the exponent involved is concerned, and it has event-character (the term event is shorthand for "events or similar entities" Zaeffferer, 2007:202) as far as the motion aspect is concerned, i.e. the noun admits sentences expressing duration, as in the rain lasted three hours. On the other hand, there are cases in which the noun is not ontologically hybrid despite the fact that it implies the motion concept denoted by the corresponding verb. In these cases, the noun and the verb imply each other
but the noun does not admit sentences expressing duration (*the spray lasted three seconds*).

An example for noun-verb pairs with circular definition is the above mentioned noun-verb pair 'rain'/‘to rain’. The definitions are taken from the OED (Concise Oxford English Dictionary OED, 2002).

- **rain:** the condensed moisture of the atmosphere falling visibly in separate drops.
- **to rain:** rain falls

An example for noun-verb pairs with noncircular definition is the German noun-verb pair 'Rolle'/'rollen'. The definitions are taken from the Duden (Duden, 1989).

- **Rolle:** zylindrischer Körper mit kreisförmigem Querschnitt
- **rollen:** sich unter fortwährendem Drehen um sich selbst (fort)bewegen

What is important here is the fact that verbs of the first group denote an exponent’s only way to move, whereas for the second group it can be said that there are several ways in which the exponent moves, but only one way to move is lexicalized in the verb. (There are a few exceptions which are given in 6.2.2.) This is why the meaning of these verbs can be paraphrased as **to move the way in which the exponent denoted by the noun base moves or typically moves.** It is proposed here that it is the manner-component which motivates the lexicalization of these verbs because the manner-component is highly salient within the nominal concept. In cases of noncircular definition, it is argued here that the manner-component is the exponent’s prototypical way to move, e.g. the snaking motion of a snake is highly prototypical for a snake.

The only exception which was found is the English verb 'to flock'. The verb 'to flock' cocodes the component *exponent* and the component *motion* and there seem to be no manner restrictions. This means that *any* (path) motion executed by a formation which is considered to be a flock can be referred to by the verb 'to flock'.

Second, the semantics of these verbs was at issue, and it is proposed here that a semantic analysis of these verbs must take into account four levels of abstraction. Abstraction level I involves the verb’s most literal meaning, namely the concept to move as the exponent denoted by the noun base. Since the exponent’s only way to move or the exponent’s typical way to move is the most literal reading of the verb, this motion event is identical to the
CHAPTER 10. CONCLUSION

manner component, coccoded in the verb in addition to the component motion and the components motion and exponent, respectively. For the second level of abstraction, it holds true that the motion concept denoted by the verb is executed by an exponent other than the exponent denoted by the noun base. The other two components are the component motion and the unmodified manner-component. The consequence is that, for this abstraction level, the manner-component establishes restrictions so that the exponents which qualify for abstraction level II move like the exponent denoted by the noun base. On the third abstraction level, the manner-component is modified. It is often the case that not only one, but several modifications of the manner-component are lexicalized. The motion event on abstraction level III involves, in addition to the component motion, a modified manner-component and - with a few exceptions in which abstraction level III involves the same exponent which qualifies for the manner-component on abstraction level II and in which the exponent just moves in a different way - an exponent other than the exponent denoted by the noun base and other than the exponents which qualify for the manner-component on abstraction level II. On the fourth abstraction level, there has been a change into an abstract domain; thus we do not have a concrete motion event any more: the motion event is fictive. A decompositional conceptual semantic analysis taking into account the positions causedness, effectiveness, locality, manner and exponent has been given for every reading of a verb.

Further, it is proposed here and explicated that on the abstraction levels II, III and IV, it is in all cases the exponent-shaped motion verb which governs the interpretation by means of domain mapping, i.e. the whole scenario is interpreted in terms of the verb.

The third goal was to show that French, which Talmy classifies as a language with a preference for verbs which cocode the components motion and path in the verb root (e.g. 'sortir', 'entrer'), deals with exponent-shaped motion verbs (in French with only one exception manner verbs) in a different way compared with the manner languages German and English. In order to show in which way French exponent-shaped motion verbs differ from their German and English counterparts, one must take into account that the fact that a language can be classified as belonging to one of the three lexicalization types is based on its ”most characteristic” (Talmy, 1985:62) way to express motion. Talmy defines ”most characteristic” as follows:

Here ”characteristic” means that (1) it is colloquial in style, rather than literary, stilted, etc. (2) it is frequent in occurrence in speech, rather than only occasional. (3) it is pervasive, rather
than limited, that is, a wide range of semantic notions are expressed in this type”.

It has turned out that the vast majority of the French exponent-shaped motion verbs is stylistically marked, i.e. they are formal or literary in style. This is also reflected by the examples, which were found. Only few of the German and English exponent-shaped motion verbs are stylistically marked. In some cases, only certain readings of a verb are formal or literary in style. Among the German verbs, the metaphorical uses of the verbs ‘sich wiegen’, ‘vagabundieren’, ‘tropfen’ and strömen’ are formal or literary in style. Among the English verbs, it is the verb ‘to eddy’ which has been considered to be the least colloquial one. Among some of the other verbs, certain readings have been considered to be formal or literary in style. These are the fictive motion concepts on abstraction level III of the verb ‘to roll’, some of the abstract uses of ‘to shuttle’, some of the concrete and the abstract uses of ‘to snake’, the fictive motion concept on abstraction level III of the verb ‘to stream’, and the abstract uses of ‘to stream’.

As far as the French exponent-shaped motion verbs are concerned, the verb ‘balancer’ is, according to a native speaker’s information, not formal or literary in style in its concrete uses, i.e. the uses on the level of abstraction III which involve the idea that a concrete exponent is hung up so that it moves freely and swings to and fro, or the idea that a concrete exponent executes either an oscillating movement which describes a concave, arc-shaped path around its center of gravity or an oscillating movement which describes a convex, arc-shaped path that is not around the its center of gravity. There are no alternatives to express these concepts. The uses on abstraction level IV have been considered to be formal or literary in style.

There are colloquial alternatives for both the concrete and the abstract uses of the verb ‘fourmiller’. It has been considered to be more colloquial to just focus on the fact that an exponent is present in large numbers and use the expressions ‘il y a beaucoup de’ or ‘tout est plein de’ instead of using the verb ‘fourmiller’. Apart from the phrase ‘il fourmille du monde’, which has been considered to be uttered in every day speech, the other uses have been considered to be formal or literary in style.

In the case of the verb ‘papillonner’, the only concept which has been considered to be present in every day speech is the verb’s abstract reading ‘to be not concentrated’. The other uses have been considered to be formal or literary in style.

All the uses of the verb ‘serpenter’, except for the concept which involves the sinuous extension of streets or rivers, have been considered to be formal or
literary in style.

All the uses of the verb 'goutter' have been considered to be formal or literary in style except for the concepts which involve the idea that drops fall because objects which either contain or transport substances, such as faucets or pipes, drip because they leak, or that exponents which absorb substances drip because they are saturated, such as sponges, which are colloquial in style.

As far as the verb 'parader' is concerned, it has been proposed by a native speaker that the verb 'défiler' is the more common and the more colloquial verb when referring to the parading of troupes or the parading of other formations of people. The verb 'parader' has been considered to be formal in style.

All the uses of the verbs 'tournilloner', 'bouillonner', 'ruisseler' and 'vagabonder' have been considered to be formal or literary in style.
Chapter 11

References

The examples are extracted from:

- Textkorpus des IDS - Mannheim
- British National Corpus (BNC)
- Textcorpus FRANTEXT
- Leipziger Korpus, http://wortschatz.uni-leipzig.de
- INTERNET

Altmann, H., and Kemmerling, S.
2000  
Wortbildung fürs Examen. Wiesbaden: Westdeutscher Verlag

Anderson, S.
1971  
The role of deep structure in semantic interpretation. Foundations of Language 6:387 – 396

Barnhart, R.K. (ed.)
1988  
Chambers Dictionary of Etymology. New York: Chambers

Chafe, W.L.
1970  
Meaning and Structure of Language. Chicago: The University of Chicago Press

Croft, W.
2002  
Cruse, D.A.

Dirven, R.

Dowty, D.

Fauconnier, G.


Fillmore, C.C.

Geeraerts, D.


Geeraerts, D., Gondelaers, S., and Bakema, P.
CHAPTER 11. REFERENCES

1994  The Structure of Lexical Variation, Meaning, Naming, and Context. Berlin: Mouton de Gruyter
Hovav, M., Rappaport, and Levin, B.
Kluge, F.
2002  Etymologisches Wörterbuch der deutschen Sprache. Berlin: Mouton de Gruyter
Lakoff, G.
Lakoff, G., and Johnson, M.
1980  Metaphors we live by. Chicago: The University of Chicago Press
Langacker, R.W.
Pearsoll, J. (ed.)
Plag, I. 
Pustejovsky, J.
Wissenschaftlicher Rat and Mitarbeitern der Dudenredaktion, (eds.)
1989    Duden, Deutsches Universalwörterbuch. Mannheim: Dudenverlag
Rey, A. (ed.)
Rosch, L.
Slobin, D.I.
Talmy, L.


Zaefferer, D.


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