TÜNDE NAGY

ON ASPECTUALIZERS
IN ENGLISH
A CORPUS-BASED APPROACH

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TARTALOMJEGYZÉK

CUPRINS

FOREWORD

The present work offers a semantic analysis of aspectualizers and their non-finite complement constructions (*to infinitive* and *-ing)* in English. It can be considered innovative in the respect that it defines aspectualizers and their complements as constructions that are themselves part of a larger macro-construction. In this regard, the analysis at hand can be considered a constructionist one, combining elements of constructional approaches (mostly Goldberg (1995, 1997, and 2006) with that of cognitive grammar (Wierzbicka 1988, Langacker 1991, etc.) and the theory of presupposition and consequences (Freed 1979).

The analysis will focus on the aspectualizers as listed by Freed (1979) (ingressive aspectualizers, *begin* and *start*, continuative aspectualizers, *continue*, *keep, keep on*, *go on, resume*, *repeat*, the egressive aspectualizers *finish*, *end* and *complete*, also *cease, stop,* and *quit*), a special emphasis being laid on those aspectualizers that allow for both *to infinitive* and *-ing* complements (*begin* and *start*, *continue*, *cease*, *go on*). It starts out from the assumption that a difference in form leads to a difference in meaning, so that although very similar in meaning, these constructions also show some subtle differences. How the aspectualizers and their complement constructions differ from each other, what semantic factors underlie the similarities and differences between them are questions that the present analysis is going to tackle.

The book consists of ten chapters: after a brief presentation of aspectuality and aspectual categories, the first chapter addresses the grammatical status and function of aspectualizers and gives an overview of their diachronic and regional development. Chapter 2 is a description of former approaches to non-finite complementation, while chapters three and four present the theoretical background that underlies this analysis, also emphasizing the importance of corpus linguistic methods (Chapter 4). Chapters five to ten offer an analysis of the above mentioned aspectualizers and their complement constructions. The book concludes with a few final remarks with suggestions for further research.

INTRODUCTORY NOTES

1.1. Aspectuality. A short history

The analysis of aspect has its origins in the Greek school of thought, based on the observation that verbs express either a complete or an incomplete event. As such, there is a distinction made between perfective (complete) and imperfective (incomplete) events, known as the perfective–imperfective distinction. This in Greek is a marked–unmarked category, with the perfective as the marked and the imperfective the unmarked category. In this relation, the perfective is understood to describe the state resulting from the completion of an action or process, the imperfective, by contrast, an event that is incomplete. There is a third category, aorist, which refers to the durativity of an event. Standing in opposition to imperfective, which describes an incomplete and durative action, the aorist stands for non-durative events, without implications of the perfective/imperfective aspects (Binnick 1991). Also related to aspect is the Aristotelian distinction of 'kinesis' (verbs expressing change) and 'energiai' (verbs that do not imply an end or a result). This distinction based mainly on ontological observations serves as basis for the Vendlerian distinction of eventuality types.

The study of aspect and aspectual categories has a long tradition in Slavic aspectology. In the Slavic language system, the opposition perfective–imperfective is fully grammaticized as being a morphologically marked category of the verb. Similarly to Greek, the perfective in Slavic is a marked category expressed mostly by prefixation, while the imperfective represents the unmarked category. Besides marking perfectivity, prefixation (and also suffixation) can confer an additional meaning to the verbs, like inception as in 'za plakat' (to burst into tears), terminative as in 'do goreli' (to have burned out), absorptive value as in 'za govirilis' (to become absorbed in a situation), etc. This phenomenon, also observable in many other languages like German (*zer*reissen – to tear, *durch*bohren – to pierce) or Hungarian (*el*neveti magát – burst out laughing, olvas*gat*– read for a while) (Kiefer 2006), expresses various facets of a situation and represents another aspectual category, known as aktionsart.

The study of Aspect also receives great interest within the western school of linguistics, which follows the traditions of the Slavic aspectology to a great extent, so that the term itself, 'aspect', is the translation of the Slavic term 'vid'.

There is confusion and controversy concerning the definition of aspect and aspectual categories in western aspectology. One important debate is over

the universality of aspectual categories, whether the terms used to describe Slavic aspect can be used to match the aspectual categories in English as well as those in other languages. While Slavic languages are specific in the sense that aspectual categories are morphologically marked and overtly present, in English, the presence of an aspectual opposition is not obligatory, and it may not even be specified morphologically. Despite the attempt to distinguish aspect from aktionsart, the two terms are often used as synonyms. That is, the term 'aspect' is sometimes extended from the description of the perfective–imperfective opposition to the description of other lexico-syntactic phenomena. It is applied the description of aktionsart categories, describing accomplished–unaccomplished, durative–non-durative, and also semelfactive–frequentative events (Binnick 1991. 140).

The term aktionsart is often used as a synonym to that of eventuality types as well, despite the fact that the two terms refer to distinct phenomena. This is especially so in English, a language rather poor in morphological markedness. In what follows, in order to avoid inconsistencies and confusion, a brief description will be given of verbal aspect, lexical aspect (also called eventuality types), and aktionsart categories.

1.2. Aspect, eventuality types, and aktionsart

Aspect, eventuality types, and aktionsart are aspectual categories that interact closely with each other and contribute equally to the aspectual value of a sentence. Despite the fact that these aspectual categories are closely intertwined, they describe distinct linguistic phenomena.

Aspect (also called verbal aspect or grammatical aspect) is a morpho-syntactic category that describes the perfective–imperfective opposition. The difference between the perfective and imperfective viewpoint is that in the first case the event is viewed as a simple whole, while in the case of imperfective aspect the event is viewed as ongoing. In this work, the opposition perfectivity–imperfectivity will be understood as defined by Comrie (1976). Comrie defines imperfectivity as a way of viewing from within, with an explicit reference to the internal temporal structure of a situation; perfectivity, by contrast, does not express any explicit reference to the internal temporal constituency of a situation, but views the situation at hand in its entirety, as a whole.

Closely connected, but also different from aspect, is aktionsart. Aktionsart is a lexical-semantic category, describing the different facets of a situation, like inception, terminativity, repetition, etc. Although there are analyses that speak about the presence of aktionsart in English (O'Dowd 1998 speaks about the productivity of aktionsart template, emphasizing the importance of particles in expressing telicity), the idea that particles in English express a well-defined

system of aktionsart categories is not generally accepted. While it is assumed that some particles, especially 'out' (e.g. die out), 'up' (eat up, drink up), or 'be' (befriend, becalm) add an additional meaning to the verb (for example, expressing the irreversible extinction in 'die out'), they are not generally considered to form a well-defined system of aktionsart categories. In some theories, the idea that the particles in English express aktionsart is not even adopted.

Different from both aspect and aktionsart is the aspectual category of eventuality types (also called lexical aspect or situation aspect). This concept stands for the different event types, activities, states, accomplishments, and achievements. Situation types are the composite result of the verbs and their internal arguments; they differ in terms of: duration (activities [laugh, walk in the park, etc.], states [love, know the answer, etc.], and accomplishments [build a house, walk to school, etc.] are durative, while achievements [win the race, reach the top, etc.] are not), telicity (accomplishments and achievements have an inherent endpoint, are telic; on the other hand, activities and states do not have an inherent endpoint, so they are atelic), and dynamicity (all but stative verbs are dynamic). There is also a fifth category, introduced by Comrie (1976), called semelfactives, which are punctual and atelic (semelfactive verbs are, for example, hit, kick, wink, or hop) and express either a single or a repeated action.

1.3. Aspectualizers. A definition

Given the definitions of aspectual categories, we can say that aspectualizers behave like aktionsart categories, pointing to the beginning (ingressive aspectualizers), continuity (continuative aspectualizers), or end of a situation (egressive aspectualizers). The definition of aspectualizers has varied a lot over the years, starting form 'begin-class verbs' and 'aspectual verbs' by Newmeyer (1975) to 'verbs of temporal aspect' by Edmonds (1976) (as cited by Brinton 1988) and also 'aspectual complement verbs' by Dowty (1979). While these interpretations define aspectual verbs as full verbs, there are also approaches that consider these verbs to be auxiliaries or assign them an intermediary status between auxiliary and full verb, e.g. Joos (1964) calls them 'quasi-auxiliaries' (as cited by Brinton 1988), Palmer (1974) refers to them as 'catenatives'. Following Freed (1979) and Brinton (1988), these verbs will be referred to as 'aspectualizers'; this term does not imply anything about the status of these verbs, but it rather focuses on their function as operators (operating on the non-finite complement construction).

There are a number of aspectualizers in modern English. *Table 1* contains a list of the aspectualizers in Modern English as given by Brinton (1988). Besides the aspectualizers analysed by Freed (1979), Brinton (1988) adds a new category of aspectualizers, called by her habitual aspectualizers. Of the aspectualizers

listed, it is *begin* and *start* (also called as ingressive aspectualizers), *continue, keep (on)* (continuative aspectualizers, focusing on the continuation or duration of a situation) *stop, quit, cease, finish, end*, and *complete* (egressive aspectualizers, focusing on the endpoint or cessation of a situation) that will be discussed in greater detail. The reason for this is that, unlike habitual aspectualizers (e.g. 'used to') which lack an internal temporal structure, these verbs have an inherent temporal reference. These are also the verbs that are analysed in detail by Freed.

Table 1. Aspectualizers in Modern English as listed by Brinton (1988)

Ingressive Aspectualizers
begin to V, V-ing, commence to V, V-ing, to V-ing, start (in/out) to V, (off) V-ing, set (about/in) to V, off/about V-ing, to V-ing, get to V, V-ing, to V-ing, proceed to V, V-ing, grow to V, come on to V; fall to V, V-ing, to V-ing, go to V, to V-ing, break out V-ing, burst out V-ing, resume V-ing, recommence V-ing
Continuative Aspectualizers
keep (on) V-ing, go on V-ing, remain V-ing, persist in V-ing, continue to V, V-ing, lie V-ing, sit V-ing, stay V-ing
Egressive Aspectualizers
cease to V, V-ing, finish V-ing, quit V-ing, stop V-ing, desist (from) V-ing, forsake V-ing, cut out V-ing, lay off V-ing, leave off V-ing, break off V-ing, knock off V-ing, give up/over V-ing, discontinue V-ing, complete V-ing, be finished V-ing, get/be through, have/get/ be done V-ing
Habitual Aspectualizers
used to V, take to V, to V-ing, be used/ accustomed to V, V-ing, be given to V-ing, make a practice/ habit of V-ing, be in the habit/ custom of V-ing, have a habit of V-ing

Definitions of aspectualizers in the literature vary depending on whether they are given a full verb status or are rather defined as auxiliaries. Freed defines aspectualizers as full verbs that take sentential complements (Freed states that the objects of aspectualizers are events that take derived nominals or primitive (concrete nouns) as objects). She calls them aspectualizers since these verbs give an aspectual reading to the sentences in which they occur (Freed 1979. 1). The main function of aspectualizers is to indicate the onset, beginning, continuation, cessation, or completion of the complement verb. Kortmann (1991) uses the term Phasensaktionsarten for aspectualizers, and distinguishes between ingressive, progressive/continuative, and egressive verb phrases.

Although according to Freed the time segments indicated by the verbs may be divided along the traditional lines of perfective and imperfective (*keep* and *continue* can be considered imperfectivizers since they refer to the nucleus of the

complement, the other aspectualizers indicate either the left boundary [ingressive aspectualizers like *begin* and *start*] or the right boundary of the event [egressive aspectualizers like *finish*, *end*, and *complete*], and as such can be considered perfective), she also states that the opposition perfective–imperfective cannot be considered to be reflected by the aspectual verbs in totality as this opposition also depends on the event type of the complement verb.

Following Freed to a certain extent, aspectualizers will be understood as expressing a temporal reference of their own (Freed. 19). They give rise to the temporal phase of the tenseless constructions *to infinitive* and *-ing* (which then become temporalized); the RT (reference time) established by them serves as a temporal reference for non-finite complement constructions. The main function of aspectualizers is to indicate the onset, beginning phase, continuation phase, or ending phase of the complement verb. In this sense, aspectualizers are understood as clausal operators (they are also called as aspectual operators by Briton 1988) operating on the complement construction.

1.4. The grammatical status of aspectualizers

Concerning the syntactic analysis of aspectualizers, an important question that has been raised by linguists is whether aspectualizers are perfective or imperfective in their deep structure.

In his article entitled *The two verbs begin*, Perlmutter (1970) argues for two deep structures of *begin*: a transitive and an intransitive one. He gives evidence both for the transitive and intransitive structure of *begin*. According to him, *begin* is transitive since it has an agentive nominalization form as in Sentence 1, it can appear in imperative form (Sentence 2), it can be a complement of 'try', where the like-subject constraint holds (Sentence 3), as well as a complement of 'force', where the object of the main clause is the same as the subject of the complement clause (Sentence 4):

(1) Pete is a beginner.
(2) Begin to work!
(3) I tried to begin to work.
(4) I forced Tom to begin to work.

(Perlmutter 1970)

The arguments in favour of an intransitive *begin* are the existence of nominalized sentential subjects, 'there' insertion, impersonal 'it' subjects, as well as the synonymy of active and passive sentences with *begin* (sentences 5–8). Perlmutter (1970) extends his arguments to the other aspectualizers (*start*, *continue*, *keep*, and *stop*) as well.

(5) The doling out of the emergency rations began.
(6) There began to be a commotion.
(7) It began to rain.
(8) The noise began to annoy Joe = Joe began to be annoyed by the noise.

(Perlmutter 1970)
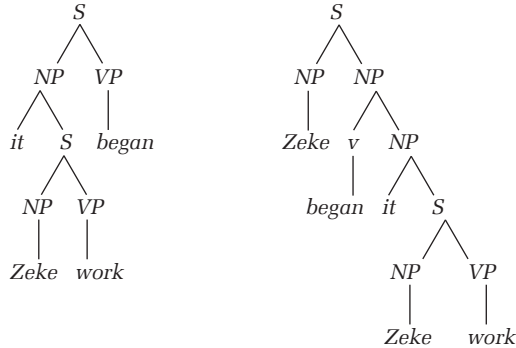
Figure 1. The 'two verbs begin' in 'Zeke began to work' (1970. 107–8)

Newmeyer (1975) argues that aspectualizers (begin-class verbs) are always intransitive and subject-embedding in their deep structure. He claims that *begin* differs from like-subject transitive verbs, such as 'try' or 'refuse', and resembles intransitive subject-embedding verbs such as 'happen' or 'seem'. Newmeyer mentions several differences between like-subject verbs and begin-class verbs. One difference is that the complement clause of like-subject verbs can have their own tense, different from the tense of the matrix, which is not possible for begin-class verbs. Newmeyer intends to show that the like-subject constraint has no validity in English. Also, while like-subject verbs require animate subjects, this is not the case for begin-class verbs, as sentences (9–10) also show.[1]

*(9) * The doorknob tried to fall off.*
(10) The doorknob began to fall off.

(Newmeyer 1975)

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1   A final argument Newmeyer brings up is nominalization. While like-subject verbs
     do not allow for nominalization to follow them, begin-class verbs do allow for such
     nominalizations (sentences 11–12):
     (11) *John tried the opening of the lock.
     (12) Sam began the cooking of dinner.   (Newmeyer 1975)

According to Fukuda (2007), the answer to the debate whether aspectualizers are transitive or intransitive in their deep structure can be found in the position of aspectualizers with respect to the VP. He considers that the position of aspectualizers with respect to the VP leads to a control/ raising ambiguity. Thus, when aspectualizers are lower than the VP, they can be considered control (transitive) verbs. On the other hand, when the aspectualizers have a higher position than the VP, they take scope over the entire VP, also the external argument; in this case, they behave like raising (intransitive) verbs (Fukuda. 160). Unlike Perlmutter (1970), who suggests two lexical entries for *begin* (a transitive and an intransitive one) with different selectional restrictions, Fukuda asserts that there is only one *begin* and the ambiguity between transitive and intransitive interpretation is structural in nature, depending on the syntactic position of *begin*.

Another issue closely related to this syntactic debate is the question whether aspectualizers are to be treated as full verbs or rather as auxiliary verbs. There are pros and cons for both interpretations.

An important argument in favour of treating aspectualizers as full verbs is that they do not meet the NICE properties characteristic of auxiliaries. NICE stands for 'negation', 'inversion', 'code', and 'emphatic affirmation'; aspectualizers fail to meet these tests, since they do not contract with *n't*, cannot precede the subject in questions, refer anaphorically to a preceding verb phrase, or carry emphatic stress. This made many linguists categorize aspectualizers as full verbs taking sentential complements under the form of *to V* or *V-ing*.

There are also arguments that favour the treatment of aspectualizers as auxiliaries. The first argument that supports this view is passivization. Passivization applies over aspectualizers as it does over modals (sentences 13– 14), the auxiliaries 'have' and 'be' (15–16) as well as a limited set of full verbs such as 'seem' and 'happen' (17).

(13) John began / continued to address the crowd. = The crowd began / continued to be addressed by John.
(14) John will / may visit Susan tomorrow. = Susan will / may be visited by John.
(15) Bill has eaten the cake. = The cake has been eaten by Bill.
(16) Mary is writing a novel. = The novel is being written by Mary.
(17) Someone happened to find my keys. = My keys happened to be found by someone.

(Brinton 1988)

Another property of aspectualizers that makes them similar to auxiliaries is transparency. Aspectualizers seem to be 'transparent' to certain verbal restrictions and can be defined entirely in terms of the surrounding verbs.

Examples 18a and 18b show that the complement verb of 'ask' is expected to express a voluntary action. While 'try' seems to fulfil this condition (19a), aspectualizers do not (19b). The constraint skips over the aspectual verb, so that it is the next lower verb that needs to be agentive (20) (Brinton 1988. 65).

Newmeyer (1975. 29) also observes that aspectualizers tend to be 'transparent': he notes that begin-class verbs can take agents only if their complement verbs can do so. Thus, in (21) *begin* receives a non-agentive interpretation since the complement clause is also non-agentive (Brinton, p. 65).

(18a) Ask him to listen (+vol).   vs.   *(18b)* Ask him to hear (-vol).*
(19a) Ask him to try to hear.   vs.   *(19b) *Ask him to begin/ continue/*
                                             cease to hear.
(20) Ask him to begin/ continue/ cease to listen.
(21) John began to grow faster in his early teens.

(Brinton 1988)

Besides the interpretations that attribute either a full verb or an auxiliary status to aspectualizers, there are also approaches that assign them an intermediary status. So does Palmer (1974), who categorizes aspectualizers in the group of catenatives. Palmer considers catenatives as having a syntactically intermediary status between full verbs and auxiliaries; catenatives are understood to have features characteristic of both full verbs and auxiliaries (they share some characteristics of the simple phrase which shows that they are full verbs, yet their passivization property makes them similar to auxiliaries). He notes that in fact no clear-cut division can be made between primary auxiliaries, modals, and catenatives.[2]

Together with the verb phrase that follows them, catenatives constitute a complex verb phrase which contains more than one full verb. Palmer (p. 167) presupposes a tight syntactic and semantic relationship between the catenative and its following verb; this tight syntactic and semantic relation explains why a particular catenative cannot appear with a certain verb phrase (24):

(24)* He kept to talk.   *(Palmer 1974)*

Brinton regards Garcia's (1967) interpretation (as cited by Brinton 1988. 73) as a plausible approach to the status of aspectualizers. Garcia suggests a

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2   Brinton notes that despite the fact that catenatives and full verbs can hardly be differentiated there are occasional syntactic differences between them. Thus, unlike catenatives, main verbs can be followed by infinitives of purpose (22); they can also be followed by simple noun objects, while auxiliaries can not:
(22) He stopped to eat.
(23a) He keeps putting candy in his desk. (auxiliary function) vs.
(23b) He keeps candy in his desk. (main verb function)   (Brinton 1988)

linguistic continuum from main verb to aspectuals, to modals, to 'have' and 'be', and finally to tense inflections. Proposing such a continuum is – according to Brinton – a satisfying way of answering the syntactic issues raised in connection with the grammatical status of aspectualizers.

1.5. The semantics of aspectualizers

In her work on aspectualizers in English, Brinton argues that – semantically speaking – aspectualizers behave like auxiliaries. According to her, aspectualizers fulfil both semantic and functional criteria for auxiliary membership, so that from a functional and semantic perspective aspectualizers can be considered aspectual auxiliaries.

That auxiliaries can be considered auxiliaries from a semantic point of view is – according to Brinton – motivated by the fact that auxiliaries can be *analyse*d without recourse to lexical features. Several semantic analyses define aspectualizers in logical and grammatical terms rather than with respect to lexical meaning. Thus, within the change-of-state calculus approach (Von Wright 1963 (as referred to by Brinton 1988. 76)), aspectualizers are considered to express the following logical relations (in this interpretation, T is seen as a dyadic operator that operates between the two p-s):

a) - pTp: meaning that the state p comes about ('not p and then p');

b) pT-p: the state p comes to an end ('p and then not p');

c) pTp: the state p continues to obtain ('p and then p');

d) –pT-p: the state p does not come about, or the state – p remains ('not p and then not p').

The first possibility defines ingressive aspectualizers, the second possibility denotes egressive aspectualizers, the third possibility identifies continuative aspectualizers; finally, the fourth possibility is not considered to define the meaning of any aspectualizer (Brinton 1988. 76).

Another approach, called the abstract predicate approach, also defines the meaning of aspectualizers as expressing logical relations. Generative semanticists like Dowty (1979) and Lipka (1982) (as cited by Brinton. 76) analyse aspectualizers as single atomic predicates or configurations of such predicates in the logical structure. Dowty introduces in his study atomic predicates like BECOME (or COME ABOUT (p): - pTp) END (p): (pT-p) and REMAIN (p): pTp. These atomic predicates serve also for the definition of aspectualizers, so that Dowty considers that the atomic predicate BECOME is essential in the definition of 'inchoatives'; similarly, Lipka (1982) also considers that BECOME is necessary for the analysis of inchoatives. Freed, adopting a presuppositions and implications approach, also analyses aspectualizers as expressing a logical relation of presupposition and consequences (consider also Chapter 2).

Also, the passivization property of aspectualizers and their transparency and tense properties point to the fact that aspectualizers and the following verbal function form a single semantic unit. Brinton's (1988. 74) statement that "the aspectualizer and the following verbal function as a single semantic unit" is considered plausible and is very much in accordance with the approach taken here.

Brinton supports Freed's (1979) view, according to which aspectualizers take events as complements. Aspectualizers are considered to take verbal complements even if they are followed by derived nominals or primitive nouns: derived nominals, such as 'conversation', 'entertainment', or 'walk', are understood to be derived from verbs that name events; also primitive nouns point to the existence of an event: either the verbal part of the complement has been deleted,[3] or the noun denotes an event (e.g. concert, war), can be associated with an event (apple and 'eating'), or is the product or result of an event (wall-hanging). This also shows that aspectualizers function as aspectual clausal operators.

1.6. Historic change and regional variation in aspectual verbs and the complement constructions *to infinitive* and *-ing*

1.6.1. The process of grammaticalization

The meaning and function of the aspectual verbs in English have gone through a remarkable change over the years. Not having originally the grammatical function of aspect, these verbs have been grammaticalized and, as a result of this process, have acquired the role and function that they have today.

Grammaticalization can be defined as "the change whereby in certain linguistic contexts speakers use parts of a construction with a grammatical function" (Traugott and Brinton 2005. 99). The process of grammaticalization involves both a syntactic and a semantic change.

Grammaticalization is considered of paramount importance both for syntactic change and for morphological change (Haspelmath 1999). A 'syntactic

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3   Dixon (2005), talking about aspectualizers, observes that, for example, in the case of ingressives such verbs can be omitted that are connected with making, preparing, or performing something such as 'cooking,' 'knitting,' 'telling,' as in (25–26). Verbs with similar meaning are 'build,' 'perform,' 'clean,' 'wash,' 'sweep,' 'mend,' etc. Also verbs related to consumption, like 'eating,' 'reading,' or 'smoking,' but also 'reading' can be deleted too (27–28).
    (25) He began (cooking) the supper.
    (26) She began (knitting) a sweater.
    (27) I started (reading) Great Expectations last night.
    (28) John began (eating) the chocolate cake.   (Dixon 2005)

reanalysis', or reinterpretation of a full lexical item as a grammatical marker, is central to the process of grammaticalization (Brinton 1988). The resulting grammatical item may become more grammatical by acquiring more grammatical functions and expanding its host-classes (Traugott and Brinton. 99).

Grammaticalization also involves semantic changes, so that in many cases it is considered a semantic rather than a syntactic process (Brinton. 95). Such changes are a metonymic shift (e.g. in the case of aspectual verbs) or semantic bleaching, the loss of content meaning and addition of grammatical meaning. In all cases, the verbs become faded or weakened in lexical meaning.

Grammaticalization has often been contrasted to lexicalization. The two processes of linguistic change, although of a different nature (e.g. lexicalization is said to typically include 'degrammaticalization' [grammatical > less grammatical changes]; also, lexicalization does not involve a functional shift to a different category, grammaticalization, however, does), also share some similarities (they both involve graduality [they occur in small, overlapping steps]), bonding, and/ or coalescence (also called 'fusion' or 'univerbation') (Traugott and Brinton 2005).

The selection of verbs for grammaticalization as aspectualizers has been motivated by a correspondence between the motional meaning of the verbs and the spatial characteristics of the aktionsart categories (Brinton 1988). Since aspect categories are spatial, the semantic change affecting these verbs during the process of grammaticalization has been a metonymic shift from one spatial meaning to another, not a gradual bleaching from spatial to aspect meaning.

The verbs known today as aspectual verbs or aspectualizers have gone through the following changes:

1. *Ingressive aspectualizers*: during the Middle English period, a number of verbs, having the basic meaning of movement, motion, or growth, come to function as ingressive aspectualizers; they express the movement into or toward – referring to entry into a situation.

Verbs grammaticalized as ingressive markers fall into two major semantic classes: one expressing motion and the other expressing receiving or getting. According to Brinton (1988), the choice of lexical verbs to become ingressive aspectualizers in the history of English seems to have been based upon two spatial conceptions of ingressive aspect: either the subject moves towards or enters a situation or the situation moves towards him/her.

2. *Continuative aspectualizers*: verbs that refer to a location in a situation including the most important aspectualizers of the current period: 'continue', 'go', and 'keep' come to mark continuative/iterative aspect (some continuative/ iterative aspectualizers arise in the NE period as well) (Brinton 1988. 132).

Verbs grammaticalized as continuative/iterative aspectualizers fall into essentially two semantic domains: one expressing the closely related notions of location and possession, while the other one expressing the notion of spatial extent. The spatial qualities of continuative/iterative aspect are present in both

cases: the first expresses the subject's being or staying in a situation, while in the second it is the spatial dimension of the situation that is important (for only durative situations can be continued) (Brinton 1988. 133).

3. *Egressive Aspectualizers:* There are a number of well-established egressive aspectualizers in Old English which, however, do not survive beyond Middle English (Brinton. 143). Most of the common egressive aspectualizers have arisen during Modern English times.

As a result of their grammaticalization, aspectual verbs have not yet acquired all the syntactic features of auxiliaries (Brinton. 94). Although semantically and functionally they are more like auxiliaries, they do not pass the major syntactic tests for auxiliary membership in English, and as such they have been assigned the main verb status.

1.6.2. The diachronic development of *to infinitive* and *-ing*

Mair (2002 and 2003), Fanego (2004), and also Rudanko (2006) give the *to infinitive* and *-ing* complementation a diachronic analysis. Mair (1990, 2002, and 2003) and Fanego (2004) contend that in the analysis of these complement structures, the diachronic development of these structures also need to be taken into account. Although the difference between the *to infinitive* and *-ing* complement construction can be given a semantic motivation, this cannot be complete without the consideration of their diachronic development since a synchronic semantic description cannot explain the difference between these constructions in its entirety.

In English, there are four complement types: that/zero declaratives (29), bare infinitives (30), *to infinitives* with and without a subject (31–32), and *-ing* with and without a subject (33–34); of these complementation types, only the diachronic development of the *to infinitive* and *-ing* complement constructions will be considered (the bare infinitive and 'that' complementation have been attested in the language since Old English times (700–1000 AD) (Fanego 2004).

> *(29) It is clear he made a mistake.*
> *(30) All I did was ask a question.*
> *(31) Max wanted to change his name.*
> *(32) The best plan would be for them to go alone.*
> *(33) Inviting the twins was a big mistake.*
> *(34) I resented them/ their going with me.*   *(Fanego 2004)*

The *to infinitive* and *-ing* complement constructions have undergone different diachronic changes. Regarding its origins, the *to infinitive* is considered to have been a prepositional phrase in old English. The generally accepted idea is that the *to infinitive* was nominal in nature in OE and has become verbalized

over the years. The particle *to* in this construction is seen as a directional adverb/preposition that has the meaning of *toward*. According to Fanego, by late Old English and early Middle English, the meaning of *to* changes, losing its prepositional character and being grammaticalized into an infinitive marker. It begins to occur where only the bare infinitive has been found before.

Contrary to this assumption about the status of the *to infinitive*, Los (2005) argues that the *to infinitive* in old English is a purpose adjunct and goal argument recategorized later as a non-finite clause. She assumes that till the time it is reanalysed as a non-finite subjunctive the *to infinitive* construction has a parallel use of the *to*-PP, appearing not only as purpose adjunct but also as goal-argument after conative verbs (with meanings like 'try') and verbs of persuading and urging (Los. 17). The fact that the *to infinitive* gets reanalysed as a subjunctive clause goes hand in hand with a massive increase of the *to infinitive* in ME (Middle English) and a parallel decrease in the subjunctive *that*-clause.

As compared to the *to infinitive* construction, the gerundive *-ing* is a later construction. Gerundive *-ing* classes are assumed to have appeared around 1300 (Fanego 2004) and to be nominal in character. They behave like all other nominals and can take nominal dependents of all kinds. From late Middle English onwards, nominal gerunds begin to acquire verbal properties so that they can govern an object or a predicate complement (35), they can be modified by adverbs or adverbials (36), tense and voice distinction (37); also they can take a subject in cases other than the genitive (38).

(35) their following the child into England
(36) my quietly leaving before anyone noticed
(37) of having done it
(38) I resented them going without me   *(Fanego 2004)*

The first verbal gerunds in object position appear in the 16th century; the first verbs to govern gerunds are negative implicative verbs like 'escape', after which the *to infinitive* has been the rule before. Later, the use of gerunds spreads not only among other negative implicative verbs like 'avoid', 'neglect', or 'decline', but also among certain emotional verbs such as 'fear', 'love', or 'like', verbs of suffering and bearing ('abide', 'bear'), aspectual verbs, etc. (Fanego 2004).

Besides Fanego (2004), Mair (2003) and Rudanko (2006) also assume an intense quantitative development of the gerund since its appearance in object position; they all argue that the spreading of the gerund at the expense of the *to infinitive* is an ongoing process, far from being completed.

According to Mair (2003), the continuous spread of *-ing* at the expense of the *to infinitive* is also the case after aspectual verbs.

In his study on the complementation of *begin* and *start*, Mair points to the continuous spreading of this construction at the expense of the *to infinitive*;

this, according to him, is also affected by functional and regional distribution. Compared to the *to infinitive* construction, the *-ing* construction seems to be a more recent construction. In the case of *begin*, while the *begin+ to infinitive* construction has been attested since Old English, the *begin + -ing* construction appears to be a late 18th century or early 19th century innovation. This is in accordance with Jespersen's Modern English Grammar, which states that the earliest entry of *begin + -ing* is from 19th century British English (Mair 2003. 330).

Unlike *begin*, *start* is not used as a verb of inception before the 18th century. In the case of start*, + ing* cannot be considered to be spreading at the expense of the *to infinitive*, since when *start* acquires its meaning as an inceptive verb it is used both with *-ing* and the *to infinitive* construction (Mair 2003).

Using the BROWN and LOB corpora and their 1990s Freiburg matches, FROWN and FLOB Mair (2003) compared data from 1961 and 1991/92. Tables 2–3 show the presence of the *to infinitive* and *-ing* complementation after *begin* and *start* in British and American English: indeed, the number of *-ing* complementation shows an increase in 1991/92 as compared to the data from 1961. Tables 2–3 also reflect the regional variation in the diachronic development of the two constructions. As the data show, in 1961, the *to infinitive* was the norm both in British English and in American English. While, however, in American English, a significant diachronic change has taken place, the *-ing* rapidly spreading at the expense of the *to infinitive*, in British English, the diachronic change has not been so intensive. In British English, the *to infinitive* has remained the statistical norm.

According to Mair, the diachronic change within American English is the most spectacular in the press, which, being an agile genre, quickly responds to the trends in language (in other genres, e.g. fiction, the *-ing* construction is not so dominant). *Table 4* shows that the number of *-ing* constructions is significant in the category of press in both American corpora, Brown and Frown.

Table 2. *To infinitive* and *-ing* after *begin* in 1961 and 1991/92

	British English	American English
1961	260:23	47:49
1991/92	204:20	202:95

(source: Mair 2003. 36)

Table 3. *To infinitive* and *-ing* constructions after *start* in 1961 and 1991/92

	British English	American English
1961	36:52	230:53
1991/92	49:59	59:110

(source: Mair 2003. 36)

Table 4. *To-infinitve* vs. *-ing* in selected genres.

	Brown		Frown	
	To-inf.	**-ing**	*To infinitive*	**-ing**
A-C (press)	22	10	19	26
D-J (other nonfiction)	126	25	88	37
K-R (fiction)	82	18	95	32

(source: Mair 2003. 337)

Rudanko (2006) in his study on the sentential complementation of 'accustomed', also states a gradual spreading of *to-ing* complements at the expense of the *to infinitive* complement construction. Based on his findings from the Times corpus, he identifies five stages in the diachronic development of the two constructions; this development ranges from the dominance of the *to infinitive* form (Stage 1) to the situation where the *to-ing* complementation exceeds the number of the *to infinitives,* which become more and more rare (Stage 5).

Similarly to Mair (2003), Rudanko (2006) also dwells on the differences that exist between present-day American English and British English in this respect. He also states a more frequent occurrence of *-ing* in American English and the dominance of *to infinitive* constructions in British English. Although in both American English and British English the number of *to-ing* complementation has increased, the number of *to-ing* after 'accustomed' seems to be more dominant in American English than in British English (Rudanko 2006).

An increase of the *-ing* complementation over the last 500 years is also noted by Fanego (2004). Analysing the verb 'intend' and its complementation, Fanego notes that gerundives after 'intend' are slowly gaining ground despite the fact that these verbs, being volitional verbs, are expected to appear only with *to infinitives*. She names several factors that influence the spread of gerundives. Such factors are style (informal registers can promote the use of gerundives), social and regional variation (the spreading rate of *-ing* is not the same in all varieties of English), and also entrenchment (the *to infinitive* tends to be retained in contexts where it is most entrenched). Fanego also remarks that the spread of *-ing* seems to be more increased in American English than in British English, where this trend is not clearly discernable yet, but it is likely to be well-attested in the near future.

Two other aspects which will not be dwelt on in this dissertation, but which are also important, are register and regional variation. Thus, considering the aspectual verbs *begin* and *start*, there is also a difference between them concerning the context in which they are used: *begin* (similar to *commence*) is used in more formal contexts than *start*, which is more informal.

ASPECTUAL COMPLEMENTATION

2.1. Former approaches

The question of aspectual complementation has been the concern of linguists for many years; starting from traditional grammarians (Jespersen 1940), through generative linguists (Rosenbaum 1967, Kiparsky and Kiparsky 1970, Menzel 1975) to functionalists and cognitive linguists (Givón 1993, Wierzbicka, 1988 and 1992, Langacker 1990, Duffley 2006), there have been many attempts to explain the phenomenon of complementation. In what follows, a brief overview will be given of the approaches taken to complementation and aspectuality as well as the values and factors with respect to which these phenomena have been defined.

2.1.1. Approaches within generative grammars

In transformational generative grammar, complementation was mainly *analyse*d from syntactic considerations, with the aim to define and specify the rules underlying the derivation of the surface forms of complementation (e.g. Chomsky 1965, Rosenbaum 1967, Ross 1969). An important question connected to complementation was to determine under what node the complement forms appear (whether they are dominated by an NP node or not) and also what transformations in their derivation sentential complement forms undergo. A detailed analysis of complementation of the early period is that of Rosenbaum (1967). In his theory, Rosenbaum is concerned with the way complementation forms are organized and structured in their deep structure and also with the rules that underlie and motivate their surface form. The complement constructions are differentiated according to whether there is an NP node in the deep structure or not.[1]

Although the early transformational grammar tends to be purely syntactic, being descriptive rather than explanatory, there are also studies which involve semantic factors in their analysis. An important line of thought is represented

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1   Rosenbaum (1976. 11) makes a distinction between complement forms dominated by an NP node and those that are not, and states that aspectual verbs belong to this latter group. This is shown by the fact that aspectual verbs cannot be passivized and pseudo-clefted, as (1–2) also show:
    (1) *Cry was begun by her   2)*? What she began was cry.

by generative semantics where the analysis of syntactic constructions involves semantic considerations. Dowty (1979) offers a decompositional analysis of eventuality types by making use of the elements of intensional logic and the sentential operators DO, BECOME, and CAUSE. With the help of these atomic predicates, he gives a semantic analysis of the eventuality types in the truth-conditional framework. A drawback of Dowty's analysis can be considered the fact that it is based solely on truth-conditional considerations. Although this analysis is of a great interest since it offers a detailed semantic analysis of verb types, it cannot answer fine-grained differences between the aspectual verbs (e.g. between *start* and *begin*).

Along the line of generative semantics, there is also a group of formal semanticists who investigate the syntax-semantics interface of aspect and complementation. Significant studies of aspect are published by Filip Hanna (1999), Krifka (1989), and Partee (1995 and 1999), to mention only a few. The aspectual categories in these studies are *analyse*d in a truth-conditional framework.

A significant analysis of aspect is Henk van Verkuyl's work (1972), entitled *On the Compositional Nature of the Aspects*. The importance of Verkuyl's book can be explained by the fact that it is among the first analyses that treat situation aspect as a compositional phenomenon. Thus, Verkuyl et al. (2005) affirm that aspect is expressed at the level of the VP. They underline the importance of treating aspectual classes at phrase level rather than as lexical categories. The idea that besides the head other elements of a construction, the specifier and the complement, also play an important role in the semantic behaviour of an aspectual construction reappears in many theories of aspect, like that of Hale and Keyser (2002), Zagona (2005), or Guéron (2004).

Within generative accounts, the analysis of certain aspectual categories like event structure, quantification and boundedness, and the relation between them also receive considerable attention. The focus is laid on the analysis of aspectual roles and the thematic roles assigned by the verb to its internal arguments. These may have different functions and be described differently in various interpretations (e.g. in Tenny's (1994) approach they are defined as *measure*, *path*, and *terminus*). The semantic roles are thought to account for the different event types, especially for the difference between statives and change-of-state verbs, such as accomplishments and achievements. Approaches in this respect are the work of Tenny (1994), Hale and Keyser (2002), or Ramchand (1997), to mention only a few. Common to these approaches is the idea that the semantic features are attributable to the entire aspectual construction. In this respect, these approaches can be considered as aiming toward a constructional analysis. Other works which deal with the syntactic-semantic analysis of verbs and their argument constructions are that of Borer (1994), Levin (1993), Levin B. Rappaport, Hovav M. (1995 and 2005), and also Pustejovsky (1995).

With the analysis of event types, the interest lies especially in the construal of events and their mapping into syntax. It is generally assumed that the construal of different event types is due to their difference in syntactic positions. A chain of different syntactic positions and also a series of movements (from one syntactic position to another) are assumed to account for the existence of various event types and their semantic behaviour. *Figure 1* shows the interpretation of an accomplishment event type as understood in Guéron's (2004) interpretation. To account for the lexical and also syntactic representation of event types, Guéron presupposes various levels of event construal. These are the syntactic representation of VP, containing the inherent features of the verbal head (in this case, whether it is specified for (+/-ext (ended)), the level of vP, showing the event type of the construction (the spatial extension VP), and finally the TP level, which shows the temporal extension of the event type. Various levels of syntactic representation are present in other accounts as well (Ramchand 1997; Demirdache and Uribe-Etxebarria 2004, 2005; etc.).
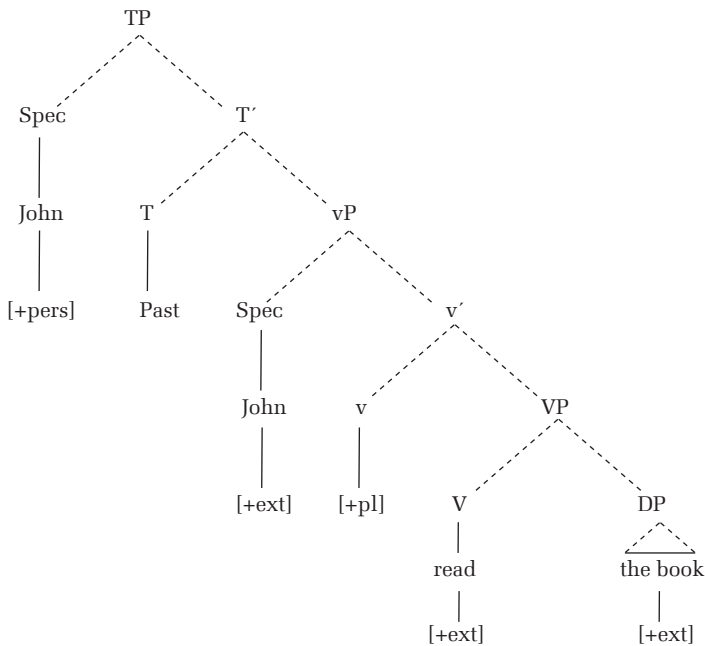
(source: Guéron 2004. 319)

Figure 2. The structure of an event type

Besides the analysis of event types, the syntactic-semantic representation of Tense and Verbal Aspect also receives considerable attention. There are

several works that give a semantic interpretation of the structural representation of Tense and Aspect. Among such works we find that of Ramchand (1997), Dermirdache and Uribe-Etxebarria (2004 and 2005), and also Alessandra Giorgi and Fabio Pianesi (1997). Written in a generative framework, these works couple a detailed syntactic analysis with a formal semantic one. They can be regarded as an attempt to link morphosyntactic properties of tense and aspectual categories with semantic representation. Similarly to other theories on Tense and Aspect like Smith (1997 and 2005, Zagona 2005), these theories start out from the Reichenbachian (1947) system, making use of the spatial-temporal categories introduced by him, namely UT-utterance time, RT-reference time, and also ET-event time. Tense and Aspect are interpreted as functional heads that relate between UT-RT (Tense) as well as well RT-ET (Aspect). This line of thought, present in many accounts of Tense and Aspect, has its origins from Klein (1995), who treats Tense and Aspect as dyadic predicates that take time-denoting phrases as arguments.

Concerning the analysis of aspectual verbs, there are only a few accounts of these verbs and their complement constructions in generative framework. The early approaches to aspectualizers (Perlmutter's (1970) work *The two verbs begin* and also Newmeyers's paper (1975) *English aspectual verbs*) are primarily syntactic in nature with a debate over the status of aspectualizers (whether they are raising or control verbs).

Recent approaches (Fukuda 2007, Thompson 2005) to aspectualizers define aspectual verbs as functional heads that project an Asp Phrase (AspP). The appearance of the aspectual verbs with *to infinitive* or *-ing* is explained by the position of aspectual verbs. When they appear below vP, they appear with *to infinitive*s; nevertheless, when their position is under vP, they only allow for *-ing* complements. Figures 3–4 reflect the syntactic position of these verbs, with *to infinitives* (*Fig. 3*) and then with *-ing* (*Fig. 4*).
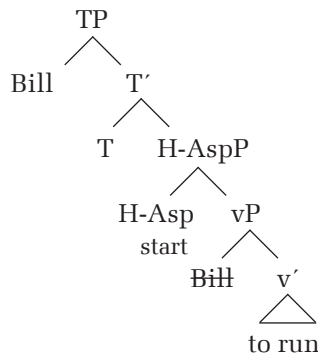
(source: Fukuda 2008. 175)

Figure 3. The structure of *start + to infinitive* as understood by Fukuda

```
                        TP
                      /    \
                   Bill     T′
                          /    \
                        T        vP
                               /    \
                            B̶i̶l̶l̶     v′
                                   /    \
                                 v       L-AspP
                                       /      \
                                  L-AspP       VP
                                  start        /\
                                             running
```

Figure 4. The structure of *start + ing* as understood by Fukuda

In Thompson's (2005) analysis of aspectual verbs, the syntactic structure of these verbs also plays an important role. In her account, the aspectual verbs are given a different position in the syntactic tree. While ingressive aspectual verbs, such as *start* and *begin*, are embedded under VP, other aspectual verbs occupy a higher position in the tree. Aspectual verbs involving a beginning and middle phase (onset and nucleus) like *keep* and *continue* are represented inside vP; finally, aspectual verbs expressing the end of a situation, *finish, end*, and *stop* are embedded under AsP.

```
                        TP
                      /    \
                   DP        T′
                          /     \
                        T        AspP
                               /     \
                             Asp       vP
                                     /    \
                                    v      VP
                                          /\
                                          V
                                          |
                                        Start
```
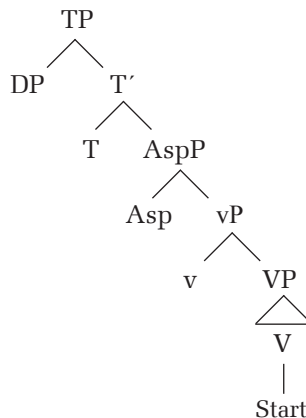
Figure 5. The syntactic representation of *start*

```
                          TP
                   ┌──────┴──────┐
                  DP             T´
                          ┌──────┴──────┐
                          T           AspP
                                 ┌──────┴──────┐
                                Asp           vP
                                        ┌──────┴──────┐
                                        v            VP
                                        │            △
                                        │            V
                                  continueᵢ          │
                                                     tᵢ
```
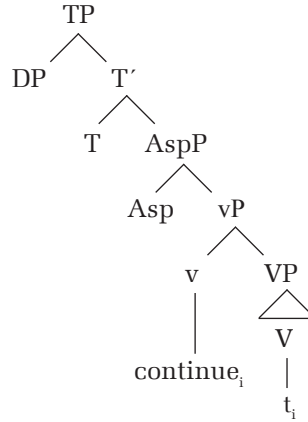
(source: Thompson 2005. 186)

Figure 6. The syntactic representation of *continue*

```
                          TP
                   ┌──────┴──────┐
                  DP             T´
                          ┌──────┴──────┐
                          T           AspP
                                 ┌──────┴──────┐
                                Asp           vP
                                        ┌──────┴──────┐
                                        v            VP
                                finishᵢ  │            △
                                        │            V
                                        tᵢ           │
                                                     tᵢ
```
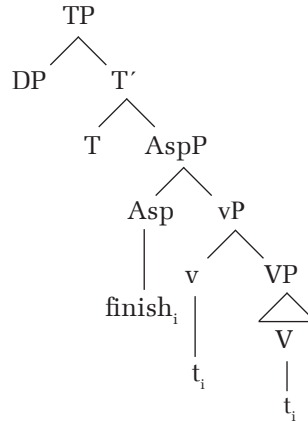
(source: Thompson 2005. 186)

Figure 7. The syntactic representation of *finish*

Although generative approaches offer an analysis that can partly explain the appearance of the aspectual verbs with the different complement forms, they cannot account for the subtle differences between the aspectual verbs (e.g. between *begin* and *start*). Neither can they explain the similarities and differences between the constructions containing the same aspectual verb and a different complement construction, or a different aspectual verb and the same complement form (e.g. between *start + to infinitive* and *start + ing* or between *begin + to infinitive* and *start + to infinitve*). In order to account for the semantics of these constructions, a more fine-grained semantic analysis is necessary which takes into account the semantic feature of each constituent of the construction.

2.1.2. Approaches within functionalist and cognitive grammar

Besides generative grammar, important research of complementation has been done in functionalist and cognitive grammar. Functionalist and cognitive approaches are similar in treating complement forms as form-meaning pairings (symbolic entities) and also in considering the speaker's choice of complement forms as governed by functional and cognitive factors, respectively (Horie 2000. 5). The meaning and function of linguistic units are often defined according to idealized cognitive models (ICMs) (Lakoff 1987), which contain all the background information necessary for the definition of the meaning of a word.

The number of linguists working within the functionalist-cognitive framework is multifold. The works of Langacker (1991), Croft and D. A. Cruse (2004), Halliday (2004), Dik and Kees Hengeveld (1997) are just a few of the studies written in a functionalist-cognitive framework. Common to these approaches is that extralinguistic factors such as topichood, iconicity (functional approaches), conceptualization, and categorization (cognitive approaches) are considered important. Since some elements of cognitive grammar will be adopted in this work, the presentation of cognitive approaches to complementation will receive special focus.

Complement forms are often considered to have a schematic meaning (Langacker 1991, Dirven 1989, Duffley 2006). Dirven (1989) defines schema as an abstract characterization of an expression, which embodies the use of the expression in all of its occurrences. It can be considered an abstract representation of an expression in all the contexts it appears in.

Within functionalist and cognitive approaches, complementation and aspect have been analysed with respect to several criteria. The factors according to which aspectual categories have been defined are various, ranging from formal-semantic to semantic-temporal, temporal-modal, and even non-temporal considerations. Recent works with a detailed analysis of both tense-aspect categories and complementation are, for example, that of Dirven and Radden (2007), Langacker (2009), R. M. W. Dixon, and A. J. Aikhenvald (2006).

2.2. Values attributed to complementation

2.2.1. The criteria of factivity and implication

That semantics plays an important role in complementation is realized even in early generative linguistics, so that e.g. Menzel (1975. 35) states that "[…] a deeper understanding of the process of complementation and nominalization came with the realization that these processes are in part determined by

semantic considerations." The semantic categories according to which verbal complements are analysed are factivity, implication, mood and modality, etc.

An important paper within early transformational grammar that stresses the importance of semantic considerations along syntactic ones is Kiparsky and Kiparsky's Fact (1970). Kiparsky and Kiparsky *analyse* verbal complements in terms of factivity. They distinguish between factive (that have a head noun FACT in their deep structure) and non-factive verbs (that do not have a head noun FACT in their deep structure); with this distinction, they intend to explain both the meaning and syntactic behaviour of verbal complements. Thus, while gerunds are taken to appear as objects of factive predicates and as such have a head noun FACT in their deep structure, *to infinitives* do not appear with factive predicates but can only appear as objects of non-factive verbs, as the sentences below show:

(3) Everyone ignored Joan's being completely drunk. (factive predication)
(4)* Everyone supposed Joan's being completely drunk. (non-factive predication)
(5) I believe Mary to have been the one who did it. (non-factive predication)
(6) * I resent Mary to have been the one who did it. (factive predication)
(Kiparsky 1970)

The deep structure Kiparsky and Kiparsky assume for factive and non-factive predication is the following:

(source: Kiparsky and Kiparsky 1970. 356)
Figure 8. The deep structure of factive and non-factive predicates

Regarding the criterion of factivity, Menzel (1975) points to the fact that *-ing* complements are ambiguous between a factive and a manner reading when embedded under factive verbs. This, according to him, is attributable to the fact that gerunds have the head noun EVENT in their deep structure, but appear as complements of factive verbs. Thus, an ambiguity arises between a factive and a manner (which is in fact an eventive) reading:

(7) I approve of his writing.
(8) His drinking annoyed me.

The criterion of factivity in the analysis of complementation has been applied by other linguists as well. Dirven (1977, 1989) as well as Menzel (1975)

also use this criterion in their analysis of complementation. They both accept Kiparsky and Kiparsky's approach to complementation (the presence of the head noun 'Fact' in the case of factive predication) but at the same time claim that this criterion is not enough to differentiate between the values of the *analyse*d complement forms.

The new criterion that Dirven and Radden (1977) introduce in their theory is the notion of implication (the truth of the main clause implies the truth of the complement clause). They distinguish between implicative and non-implicative complement constructions. As far as aspectual verbs and their complementation forms are concerned, they make a distinction between *begin, start*, and *continue,* which are implicative verbs, implying the truth of the complement verb, and other aspectual verbs, such as *stop, quit, finish*, *give*, and *cease to /-ing*, which are non-implicative.

2.2.2. Mood and modality

Besides the criteria of factivity and also implication, the occurrence of different complement forms is also explained by the criteria of mood and modality (cf. Vendler 1968, Bolinger 1968 and 1978).

The first significant approach to complementation in terms of mood is that of Vendler (1968). In his discussion on nominalizations, Vendler introduces the term 'container', which he defines as "the sentence root with a noun-gap suited for a nominal" (Vendler 1968. 31) (a nominal is interpreted as the noun phrase resulting from a proper nominalization (Vendler 1968). Vendler differentiates between types of 'containers' depending on their structure and also their compatibility with nominals ('co-occurrence restrictions'). He presumes a close relationship between the type of nominal and the semantic value of the container.

As regards the *to infinitive* and *-ing* complementation forms, Vendler considers that the choice between the *to infinitive* and the *-ing* depends on whether the container requires the indicative, or rather the subjunctive in the matrix ('matrix' in Vendler's term is the sentence undergoing a nominalization). Thus, according to Vendler (1968. 65), "we accept *to* V instead of V-*ing* more readily if the container does not clearly require the indicative in the matrix, and we accept V-*ing* instead of *to* V + more readily if the container does not clearly indicate the subjunctive in the matrix".

Modality is also used as a criterion in the analysis of complementation. Not only in generative accounts (e.g. Levin 1993) but also in functional-cognitive approaches, it is treated as an important factor with respect to which complementation can be defined (Verspoor 1990, Dixon 1991, Givón 1993). In many cases, modality is used along other criteria such as intention and causality (Verspoor 1990), implication (Givón 1993), etc.

Bolinger (1968, 1978) distinguishes between verbs that express unrealized possibilities (e.g. *want*, *wish*, *expect*, *hope*) and those that express real happenings ('possibilities conceived as actualities' such as *enjoy*, *visualize*, *detest*, or *understand*). The occurrence and meaning of the *to infinitive* and gerundive constructions are defined in relation to the semantic value of the matrix verb. This means that the infinitive constructions will appear after verbs expressing unrealized possibilities (*want*, *wish*, etc.) and, as a consequence, will have a hypothetical meaning. The gerundives, on the other hand, will appear after verbs conceived as actualities, and as such they bring about the 'reification' of the eventuality they are attached to. According to this distinction, Sentence (9) expresses reification, while (10), on the other hand, potentiality:

(9) John started getting angry.
(10) John started to get angry.

In Bolinger's theory, the meaning of the complement forms is defined with respect to the matrix verb, so that Bolinger (1968) presumes a common meaning between verbs that require either the *to infinitive* or the gerund as their complement. According to him, this common meaning in the case of the *to infinitive* will be futurity, so that all verbs requiring the infinitive carry the meaning of futurity in themselves.

Another theory of complementation along a functionalist approach, closely related to modality, is that of Verspoor (1990). Verspoor explains the difference between *the to infinitive* and the *-ing* complement constructions in terms of causation and intention. Contrasting finite complement constructions with non-finite complements, Verspoor (1990) asserts that non-finite complements are only possible when there is a causally relevant causative relationship between the action or state expressed by the matrix verb and the one expressed by the complement. Verspoor introduces the feature [+/- immediate] causation, where [+ immediate causation] signals the simultaneous occurrence of the complement verb with that of the matrix, while, on the other hand, [-immediate causation] expresses a future orientation of the complement with respect to the matrix verb. Based on this distinction, the *to infinitive* is thought to express non-immediate causation, whereas the *-ing* construction, on the other hand, immediate causation.

Along causation, intention also plays an important role in Verspoor's theory (following Searle's theory of intentionality, intention is defined in Searle's terms as "any mental state or event that is either directed or can be directed" (Verspoor 1990. 47). Verspoor points to the fact that the two notions are closely interrelated as there is causality in every intentional state. Concerning intentionality, she makes a distinction between prior intention (where the agent acts on his intention, carries it out, or tries to carry it out) and intention in action (where the action and the intention are inseparable). This distinction, similar

to the one between [+/- immediate] causation, contributes to the differentiation of the non-finite complement forms concerned. In aspectual complementation, *to infinitive* is defined as expressing prior intention and *-ing* as expressing intention in action. As the distinction between prior intention and intention in action is closely bound up with temporality, this differentiation makes Verspoor's approach similar to other interpretations, where the *to infinitive* is given a future value, while the *-ing*, on the other hand, a durative, ongoing value (Bolinger 1968, Wierzbicka 1988).

2.2.3. Temporality

Dirven (1989) and Freed (1979) define the opposition *to infinitive – -ing* complementation forms as between a generic reading (*to infinitive*) and a durative reading (*-ing*). Dirven (1989) affirms that in addition to factivity, the *to infinitive*, *-ing* verbal complements also involve a distinction between a series reading (the *to infinitive*: a series of individual occurrences) and durative reading (the unspecified and unbound duration of one phenomenon with the *-ing* construction), a distinction similar to that of countable (*to infinitive*) and uncountable nouns (*-ing*). This distinction is very similar to the one made by Freed, who also attributes a generic reading to the *to infinitive* (she defines generic as "suggesting a repetition of the event in question, occurring at different moments during an unspecified moment of time" (Freed 1979. 152). The *-ing* construction is interpreted as having a durative reading, denoting the duration of a single event (11–12):

(11) She told him not to visit her anymore. At first, he ignored her and continued to visit/? visiting anyway. Finally the visits stopped.
(12) Lacey ceased crying/? to cry when she heard her parents come in the door.   *(Freed 1979)*

In (11), there are several visits that finally *stop*, while in (12), by contrast, there is only one event involved. Another difference that Freed sees between the *to infinitive* and the *-ing* form, and which is closely connected to the values she attributes to these two forms, is that while *to infinitives* refer to the entirety of an event (e.g. the visit), the *-ing* form does not.

Duffley (2006) argues that the distinction made by Freed does not always hold. The *to infinitive* does not always express a series reading but also a single occurrence (13); similarly, there are cases when the *-ing* construction expresses a habit rather than an ongoing situation (14).

(13) All of a sudden she started to run towards the car. (single occ.)
(14) He started smoking when he was only 13. (habit)   *(Duffley 2006)*

Wierzbicka (1988) attributes the *-ing* construction both a temporal and a non-temporal value. Differentiating between the cases where *-ing* has a non-temporal (when it expresses facts and possibilities) and a temporal value (expressing actions, events, states), she states that in aspectual complementation the *-ing* construction is always temporal, expressing a stretch of time that is conceived as ongoing, 'progressing'. That the gerund in aspectual complementation is always temporal appears to be motivated by the fact that the complement of an aspectual verb cannot be fronted, also shown by the sentences below:

(15a) It started raining.   *(15b) *It was raining that it started.*
(16a) John started snoring.   *(16b) *It was snoring that he started.*
                                                        (Wierzbicka 1988)

Besides expressing an ongoing, durative event, *-ing* in Wierzbicka's approach is also connected to the idea of change, so that *-ing* can be attached only to verbs that express the possibility of constant change. Wierzbicka considers that only such verbs are compatible with the idea of 'duration over a stretch of time'. From this, it follows that purely stative verbs, which do not imply the possibility of constant change, do not normally take gerundive complements, as (17) shows:

(17) ??Around that time, I started knowing the answer. (Wierzbicka 1988)

In Wierzbicka's approach, the temporal values of complement constructions are closely defined with respect to time phases expressed by the matrix. In the case of the *-ing* construction, the value of *-ing* is defined as representing a stretch of time co-existent with that of the matrix: in the case of inceptive verbs, it coincides with the beginning (*he began / started talking to her)* of an event; in the case of continuous verbs, with the duration expressed by the matrix (*He kept / continued working*); finally, when it appears with egressive aspectualizers (*stop, finish*), it expresses a temporal phase co-existent with that of the matrix (*I stopped / finished peeling the potatoes*).

As far as the meaning of the *to infinitive* is concerned, Wierzbicka attributes two semantic meanings to the preposition *to* in complementation: one is the idea of wanting, the other is the idea of futurity; she considers that the two values are closely interrelated, so that "[…] wanting gives rise to an expectation that something will happen because of that, and this is why *to* is the normal complement in the context of wanting" (Wierzbicka 1988. 35). In the *to infinitive* construction, *to* refers to something forthcoming – this means that only those verbs can appear with *to infinitives* that are compatible with the idea of future expectation. The lack of this feature provides an answer as to why the aspectual verbs *finish, stop, resume*, *quit*, and *keep* do not appear with *to infinitives*

(when something is finished, there is no room for future expectations; *stop* implies a sudden and unpredictable change which excludes reasonable future expectations; *quit, resume*, and also *keep* can imply an unpredictable and arbitrary pattern of behaviour, where the idea of future expectation is missing).

2.2.4. Non-temporality

Langacker (1991) attributes primarily a non-temporal value to the *to infinitive* and *-ing* forms. The *to infinitive* and *-ing* constructions are considered atemporal predications that impose a nominal reading on the clause they appear in. Langacker (1991) defines the function and meaning of complementation forms as resulting from the interaction of several conceptual phenomena like profiling, grounding, scanning, and scope.

In the definition of the values of complement forms, scanning receives an important role. Scanning has to do with the way a situation is viewed. Langacker differentiates between sequential scanning (where different successive stages of happenings are profiled) and summary scanning (representations of successive stages are superimposed to form a single gestalt) (Langacker 1991. 223).

Langacker treats both *to infinitive* and *-ing* complementation forms as expressing summary scanning; the idea behind it is that both the *to infinitive* and *-ing* represent the transition to nominalized forms; appearing as a subordinate clause of the matrix, they are considered to be nominal in nature. The difference between the two constructions is in the way they profile the complement verb in their immediate scope (in their profile): the *-ing* in complementation is given the same value as in progressive constructions – it is considered to impose on a perfective process an immediate temporal scope that excludes the endpoints; the *to infinitive* profiles a path–goal image schema, where the component states of a process are construable as a path leading to its completion (Langacker 1991).

Although Langacker attributes their atemporalizing function as a primary function to the complement forms *to infinitive* and *-ing*, he also points out that these complement forms can have temporal meanings (which Langacker considers as prototypical meanings of the *to infinitive* and *-ing* constructions). These meanings are e.g. futurity for the *to infinitive* (expressing an orientation towards the future) and a participal value for the *-ing* (so that it imposes an imperfective reading on the situation in question).

Following Langacker's (1991) ideas to a certain extent, Duffley (2006) also specifies the values of these complement constructions with respect to nominalization.

The main idea expressed by Duffley is that *-ing* cannot be given an inherently imperfective meaning since the *-ing* construction can give rise to both imperfective and perfective impressions. Sentence (18) is an example

where *-ing* gives the impression of a perfective event:

(18) Hearing his cry, she dashed into the garden.   *(Duffley 2006)*

Duffley (2006) states that the generalized schema for the *-ing* construction is that of interiority: the different uses of the gerund-participle form depend on how this schema of interiority is evoked. When the *-ing* form leads to a progressive, ongoing interpretation, the gerund-participle is seen to evoke at its base a perfective process on which it imposes an immediate temporal scope from which the endpoints of the process are excluded (this view of *-ing* corresponds to Langacker's definition). In the other uses, where *-ing* gives a perfective event, another form of conceptualization, also called 'reification', takes place, where the event is seen as an abstract thing. In this case, the endpoints of an event are assimilated into the interiority of the event.

Concerning aspectual complementation, Duffley defines the meaning and function of the *-ing* construction as that of a direct object. According to him, except for a few cases (like in the case of the verbs *keep* and *go on*, where *-ing* has a participial value), *-ing* semantically behaves as a direct object, the only function that it has being 'something which is V-ed'. Duffley provides syntactic and also semantic criteria to define the direct object status of *-ing*. The syntactic criteria listed by him are the appearance of the *-ing* form in the subject position of the passive sentence with the same verb (19), the possibility of pseudo-clefting (20), as well as the substitution by a pronoun in an objective case (21).

(19) Playing tennis on the new courts was enjoyed by everyone.
(20) What everyone enjoyed was playing tennis on the new courts.
(21) Yes, everyone enjoyed it.   *(Duffley 2006)*

Regarding the semantic criteria, the main argument in favour of treating the *-ing* form as a direct object is the relation of temporality of the *-ing* form to the main verb. Duffley draws attention to the fact that in many cases there is no temporal relation between *-ing* and the main verb, giving examples of cases where *-ing* simply expresses a general fact. When there is a temporal relation between the verb and *-ing*, according to Duffley, this is attributable to the logical implication of the lexical meaning of the verb. Thus, while Sentence (22) clearly refers to an ongoing situation, in (23), *-ing* expresses a subsequent relation to the main verb (*talking* is understood as taking place before regretting), whereas in (24) *-ing* expresses futurity in relation to the main verb; finally, in Sentence (25), it is not clear from the sentence if the purchase of a wig is simultaneous, prior, or subsequent to it being mentioned.

(22) He was enjoying talking with her.

(23) I regret talking to him about it.
(24) He readily postponed seeing him till after the departure of the former.
(25) Dad mentioned buying a wig.   *(Duffley 2006)*

As Duffley sees it, the main semantic function of *-ing* in these cases is to express something that is V-ed, respectively something that is enjoyed, regretted, or postponed.

Duffley (2006) defines the value of the *-ing* construction in relation to the *to infinitive* construction. According to him, the *to infinitive* has a different semantic value form the *-ing* construction. The *to infinitive* does not have a direct object function like the *-ing* construction as it does not fulfil the criteria for direct object membership (consider the ungrammaticality of sentences (27–28). The main function of the *to infinitive* construction in Duffley's (2006) approach is to express a movement leading up to a point:

(26) Many countries simply continued to import oil from Iraq in spite of the embargo.

*(27) *To import oil from Iraq, like many other commercial activities, was simply continued by many countries in spite of the embargo.*

*(28) *Many countries continued to (*that) in spite of the embargo.*
                                                        (Duffley 2006)

An important advantage of Duffley's theory is that he gives a schematic meaning to the *to infinitive* and *-ing* constructions, but at the same time he defines their meaning and function with respect to the meaning and function of the matrix. In all cases, the meaning of the complement forms is defined in relation to that of the matrix: the impossibility or restricted use of an aspectual verb with a certain verbal complement is explained by a relation of incompatibility between the meaning and function of the matrix and that of the complement form.

It remains a question, however, if the meaning of *-ing* in aspectual complementation can totally be reduced to a direct object value, 'that which is V-ed', without regard to the temporal value of *-ing*. This is even more the question since in many cases a certain aspectual verb allows for several complement forms with slight differences in meaning, which also have to do with the temporality of the aspectual construction in question (e.g. the futurity value of the *to infinitive*, the durative or ongoing character of the *-ing* construction).

The idea that in aspectual complementation, the *-ing* construction is atemporal, only having a direct object value, 'something which is V-ed', is in contrast with the value attributed to *-ing* by several other linguists, e.g. Wierzbicka (1988), Givón (1993), Freed (1979), and also Brinton (1991), who give the same value to *-ing* as in the progressive construction ('expressing an ongoing activity').

2.2.5. Conclusion

Although all the approaches presented so far give useful accounts of the phenomena subsumed under complementation, they also have their drawbacks.

Several of the approaches interpret the meaning of complement forms as mainly coming from the semantics of the matrix. The matrix verb is taken to define the meaning of the complement form, so that the meaning of the complement form will depend on the type and meaning of the matrix verb. Consequently, there are often such cases discussed and elaborated where the matrix can only appear with one complement form (either the *to- infinitive* or the *-ing*). The problem with this is that in many cases no clear-cut distinction or ordering can be made of a certain matrix verb and the complement form it takes. Many verbs, including aspectual verbs, can take not only one but several complement forms (*to infinitive* and *-ing* complements), so the ordering of the *to infinitive* or the gerundive to a certain type of matrix verb is not always plausible.

Cognitive approaches ascribe a schematic meaning to complement forms. Although many approaches define the meaning and function of complement forms with respect to the matrix verb, the fact that complement forms are given only a schematic meaning is not feasible since this cannot account for all the meanings that complement forms can have. Thus, though the *to infinitive* does express future orientation (a value that is most often attributed to the *to infinitive* construction), this meaning of the *to infinitive* is not present in all cases. Sentence (29), for example, expresses a habitual use of the *to infinitive* construction. Similarly, *-ing* does not always carry the ongoing, continuous reading associated with it; an example of this is (30), where *-ing* refers to a fact.

(29) I like to sit here. (habitual)
(30) I can't stand lying. (the fact of lying/general)

An interesting approach that will be partly followed here is Kleinke's (2002) approach to complementation. The innovative character of Kleinke's approach is that she posits not only a schematic but also a prototypical meaning of the complement constructions.

2.3. Kleinke's approach to complementation

Kleinke (2002) affirms that the values attributed to the complementation forms in different approaches (in terms of temporality, modality, presupposition (factivity), causality, etc.) are too specific to account for all the uses of these complement forms. She considers that there are no uses of the complement forms that would be typical for all their uses. Neither the *to infinitive* nor the

-ing construction has meanings that would be characteristic of all their uses. Sentences (31–35) express various uses of the *to infinitive* construction: while in (31) and (32) the *to infinitive* expresses future orientation, in (33) and (34), the *to infinitive* has a habitual value. Also, while sentences (31) and (33) can be considered non-implicative, sentences (32) and (35) contain the implicative use of the *to infinitive*, so that the situation expressed by the complement verb is understood to have been carried out to the end:

> *(31) I want to eat my lunch.*
> *(32) I managed to leave the house.*
> *(33) I hate to smoke.*
> *(34) She liked to sit and sew.*
> *(35) He forced me to clean the room.*   *(Kleinke 2002)*

Similarly to the *to infinitive*, *-ing* can neither be given a meaning that would be characteristic of all of its uses (the temporal and non-temporal uses of *-ing*). Examples are sentences (36–38), which contain both the atemporal (36–37) and temporal uses (38–39) of *-ing*:

> *(36) Within an hour of my arrival, I regretted* (the fact of…) *going there.*
> *(37) He confessed* (the fact of…) *having committed the crime.*
> *(38) Now cease* (* the fact of…) *complaining and start work.*
> *(39) He was unable to continue* (*the fact of…) *making his full contribution.*
> *(Wolf 1973)*

The various uses that the complement constructions have made Kleinke (2002) conclude that complementation forms are very complex in nature and that their meaning and function can be properly accounted for if besides their schematic meaning their prototypical meaning is also taken into consideration. Both types of meaning are interrelated and fused within one form. They are defined as being closely related to the meaning of the matrix.

2.3.1. The schematic meaning of complement constructions

Kleinke describes the schematic meaning of verbal complements by combining Lyons' (1977) model of entity and Langacker's (1991) theory of profiling. In the entity model, entities (defined as 'mental constructs' by Dik (1997. 127)) are of several types: 0-order entities express properties, 1st-order entities express things that have existence in space, 2nd-order entities denote states of affairs, 3rd-order entities stand for possible facts, and finally 4th-order entities stand for speech acts.

According to this classification, Kleinke includes gerunds in the group of 2, 0 order entities, as they describe state of affairs (processes, eventualities, or states). In her interpretation, gerundives have a regional profile, which in kinaesthetic interpretation corresponds to the 'container' schema (Lakoff 1987).

To infinitive constructions, by contrast, are considered 2,5 order entities, motivated by the fact that they are less nominal, having a relational-regional profile (a path–goal schema). They express the emergence of a situation (the 'instantiation of a situation'); the relational aspect of the *to infinitive* is expressed by the preposition *to,* which is regarded as a relational element with respect to the bare infinitive, profiled as a region (Kleinke. 113). Kleinke brings up several arguments to show the more relational character of the *to infinitive* as compared to -*ing*, like the impossibility of possessives with *to infinitives* (Sentence 40) or the insertion of 'for' in subject position in the case of *to infinitives* (Sentence 42):

(40) **I taught John's to play the flute.*
(41) *The children's singing amused us.*
(42) *For Susan to get married surprised mom. / Susan's getting married surprised mom.*

When appearing in subordinate constructions, all non-finite constructions are considered to acquire a more nominal character. This also happens in the case of *to infinitives*, which become more nominal and acquire a regional profile in subordinate constructions (Kleinke 2002. 115).

Another difference between the two constructions is defined in terms of scanning. Unlike Langacker (1991), who includes the two constructions in the same semantic group, Kleinke differentiates between them even in this respect; while -*ing* is considered to express summary scanning (motivated by its nominal character), the *to infinitive* construction is considered to express sequential scanning (motivated by its more relational profile).

2.3.2. The prototypical meaning of complement forms

The prototypical meaning of complement forms is defined with respect to the matrix. The prototypical meaning of complement forms varies depending on the semantic value of the matrix they follow. These meanings are futurity after verbs of planning and intention (Sentence 43), modality after volitive verbs (e.g. 'hope', 'plan', 'anticipate', 'suggest') (Sentence 44), implicative after predicates like 'compel', 'force', 'regret' (45), etc.

(43) *She intended to leave on Sunday.*
(44) *I hope to see you again.*
(45) *She regrets calling him.*

In the case of aspectual verbs, the appearance of an aspectual verb with several complement forms (*to infinitive*, *-ing*) is explained by the different ways the situation can be profiled: as a relational one with focus on the gradual phenomenon that leads to the inception of the situation (*to infinitive*) or rather the profiling of a situation in its entirety (the *-ing* construction). The fact that certain aspectual verbs (e.g. *keep, resume, stop, quit, finish*) only take *-ing* verbal complements is explained by the fact that these aspectual verbs are more strongly bound up with the profiling of a situation in its entirety (Kleinke 2002. 159).

Both types of meaning (schematic meaning and prototypical meaning) of complementation forms are defined in close relation with the matrix. Kleinke presupposes a series of relations between the matrix and the complement forms and also between the two meanings of the complement constructions. These relations, which she terms relations of tolerance and relations of determination, hold, on the one hand, between the meaning of the matrix and the schematic meaning of the complementation form as well as between the prototypical meaning and schematic meaning (entity status) of the complement form (relations of tolerance), on the other hand, between the matrix and the prototypical meaning of complement forms (relation of determination).

The subordination of complement forms to the main clause also involves a relation not only between the grammatical form of the complement and the complement verb but also and between the matrix verb and the entire complement structure (Kleinke. 97). As stated by Kleinke, these relations manifest themselves in two steps: while the former expresses the schematic meaning of the complement forms, the latter leads to the prototypical meaning of the complement form.

An important point that Kleinke makes with respect to these relations is that both types of relations (relations of tolerance and determination) are relations of fusion, they are present and activated in succession (Kleinke 2002. 99).

2.4. No meaning difference attributed to the complement constructions

Besides the approaches that give semantic values to verbal complements, there are also interpretations that do not attribute any meaning difference to different complement forms. In the latter case, the choice between verbal complements (the *to infinitive* and *-ing* construction) is considered a stylistic matter. The difference between complement structures is considered too minimal to bring about a difference in interpretation. Hornby (Wolf 1973. 52), for example, declares that "no general rule can be given for choosing between gerunds and infinitives as objects"; Quirk et al. (1985) also remark that there

is no observable difference of meaning between the constructions. This is in accordance with what Strang (as cited by Wolf, p. 53) maintains. According to him, "certain lexical items invariably or preferentially 'select' either the inf. or the gerund to follow them – […] though some common threads of meaning may be detected in each group, it is not on the basis of such common meanings that the groups are established, for near-synonymous verbs may pattern differently (enjoy/like)."

Wolf (1973) argues that it is the 'common meanings' of matrix verbs that makes the matrix select either the gerund or the *to infinitive* (according to Wolf, verbs that select either the *to infinitive* or the gerund form semantic fields; but what dominating factor differentiates between verbs governing *to infinitives* or *-ing* is left open).

Wolf calls the verbs that allow for both the *to infinitive* and *-ing* constructions polysemantic; the appearance of these verbs with both constructions will be explained by additional semantic features, such as reference to the past (*-ing*) vs. orientation towards the future (*to infinitive*) in the case of the verbs 'remember', 'recall', 'recollect', 'forget', general reference vs. specific reference in the case of verbs like 'advise', 'allow', 'authorize', 'dread', 'encourage', 'forbid', 'hate', 'love', 'permit', etc. Interesting is also what Radford (1997. 52) says about the *to infinitive*. He distinguishes between the prepositional *to* and the infinitival *to*, and notes that while the former has an intrinsic semantic content (meaning 'as far as') the infinitival *to* seems to be meaningless.

ASPECTUAL COMPLEMENTATION. CONSTRUCTION GRAMMAR APPROACHES

3.1. Construction grammar approaches to complementation

The theoretical background to the semantics of aspectual verbs and aspectual complementation is largely based on the ideas of Construction Grammar as mostly understood by Goldberg (1995, 1997, and 2006).

Construction Grammar has its origins in cognitive linguistics and lexical semantics, in the works of Langacker (1990, 1991), Lakoff (1987), Goldberg (1995), etc. It grew primarily out of a need to account for the origin and meaning of idiomatic expressions whose form and interpretation cannot be predicted by general phrase-structure rules. Unlike generative approaches that list idioms as 'phrasal lexical items', stating that all idiosyncratic and arbitrary aspects of grammar should be restricted to the lexicon and the notion of grammatical construction is redundant (Chomsky 1981 and 1993), construction grammar points to the need of analysing idioms as constructions, where the syntactic, semantic, and also pragmatic properties are associated with the construction itself (Croft and Cruse 2004. 237).

Construction grammar takes constructions as basic units of language. Constructions are defined differently from descriptive structuralist approaches, where constructions solely represent grammatical features (e.g. passive constructions) without any specific consideration of meaning (Taylor 2003). In construction grammar meaning also plays an important role in the definition of constructions, which are always considered to represent pairings of form and meaning. Whether they are regarded as atomic (e.g. in certain approaches lexical items are also considered constructions) or more complex (e.g. a clause), constructions represent symbolic units, pairings of form with meaning. (The meaning of a construction contains all the conventionalized functions that the construction can have, including the properties of the discourse in which it is found and the pragmatic situation of the interlocutors.) The elements of a construction are connected by semantic (e.g. the relation of the component parts to the construction itself) and syntactic links (the connection of the syntactic elements of a construction); the semantic and syntactic elements are

then also connected by symbolic links that reflect the nature of constructions as symbolic units (form and meaning) (Croft and Cruse. 260).

There are several approaches within construction grammar. Croft (2004) mentions several different theories such as that of Fillmore and Kay (1993, 1999), Lakoff (1987) and Goldberg (1995), *Cognitive Grammar as Construction Grammar and Radical Construction Grammar* (Croft 2001). These approaches share many similarities (they all treat constructions as symbolic units, pairings of grammatical form and meaning); nevertheless, they also differ in the way they define constructions and what relations they assume between the elements or components of a construction.

Unlike projectionist approaches, in terms of which the verb's meaning alone determines or projects the meaning associated with a sentential frame, constructional approaches do not consider the semantic determinants of argument realization to be totally lexical. They do not deny that a large amount of information results from the semantic value of the main verb. However, they also state that in many cases a construction possesses a number of semantic and syntactic elements that are not derivable from the verb alone. Since the appearance of verbs with different complement constructions results in different meanings, it is the syntactic realization of arguments rather than the meaning of the verb alone that determines major facets of meanings (Levin and Rappaport 2005. 190).

There are many reasons brought up by construction grammarians in favour of a constructional analysis. One reason is that the arguments cannot be considered as directly projected by the verb in all cases, but the construction can also add new arguments and meanings to that of the verb. Good examples of this are ditransitive and resultative constructions, where the indirect object is not necessarily specified by the matrix but can be brought about by the construction itself. Thus, while in Sentence (1) the complement structure is specified in the semantic frame of the verb, parts of the complement configurations in sentences (the adjunct, *into the salad* in (1); the recipient, *Chris* in (2)) are not specified in the semantic frame of the verb but are brought about by the entire sentence as a construction:

(1) Pat sliced the carrots into the salad.
(2) Pat sliced Chris a piece of pie.   *(Goldberg 2006)*

The verb alone can neither determine in all cases whether a given construction is acceptable. This is well illustrated by sentences (3–4), where the difference between the sentences cannot be captured by the semantic value of the main verb:

(3) Sam carefully broke the eggs into the bowl.
*(4) *Sam unintentionally broke the eggs onto the floor.*   *(Goldberg 1995)*

In spite of the similarities between them, constructional approaches diverge in the way they define constructions and the relations that hold among them. In the definition of constructions, a greater difference can be stated between traditional (Goldberg 1995, 1997; Fillmore and Kay (1999)) and so-called neo-constructional approaches such as Croft (2001) or Borer (2001). While traditional constructionists see constructions as stored linguistic units, closed class elements (clausal patterns) (Goldberg 1997. 385), neo-constructional approaches give a totally syntactic explanation for complementation. Unlike traditional constructional approaches, neo-constructionists reduce the importance of lexical elements in the resulting constructional meaning to the minimum. Borer (2001), for example, assigns meaning directly to skeletal syntactic forms. She defines the meaning of argument structure as directly resulting form syntactic structure (Goldberg 2006. 210). Borer's interpretation does not account for lexical meaning, which could be considered a drawback of her approach. Similarly, Croft's (2001) *Radical Construction Grammar* takes a non-reductionist approach to grammatical constructions by rejecting all kinds of relations between the elements of a construction.

Adopting different interpretations to constructions (a reductionist or a non-reductionist approach), construction grammars also differ in the way they describe the relations between the elements of a construction, as well as the semantic and syntactic relations they presuppose between them (while in the Construction Grammar of Kay and Fillmore (1999) the syntactic relations between the elements of a construction are elaborated in great detail, in Goldberg's (1995, 2006) approach, more focus is laid on the semantics of argument constructions) and in the type of semantics that is emphasized (in Langacker's cognitive approach, for example, semantic construal receives great importance).

3.2. Construction grammar in Goldberg's interpretation

Goldberg (1995, 1997, and 2006) regards constructions as symbolic units, form-meaning pairings, with independent semantic and syntactic properties. While Goldberg (1995) specifies constructions at the level of syntactic patterns (argument structure as constructions), Goldberg (2006) includes in the category of constructions words and morphemes as well so that constructions are defined as "learned pairings of form with semantic or discourse function, including morphemes or words, idioms, partially lexically filled and fully general phrasal items" (Goldberg 2006. 5). She differentiates lexical constructions from grammatical constructions in terms of complexity and the degree to which phonological form is specified.

An important criterion in Goldberg's (1995, 2006) definition of construction is that some aspect of the form or function of the construction should not be predictable from its component parts or from other constructions. This idea was later modified by Goldberg herself, Goldberg (2006) also characterizing as constructions those patterns that are predictable, commenting that *"patterns are also stored as constructions even if they are fully predictable as long as they occur with sufficient frequency"* (Goldberg 2006. 5). In conformity with Goldberg's idea, it will be assumed that the meaning of the aspectual construction as a whole is compositional to a certain degree, being motivated by the integration of the matrix and its participant roles into the meaning of the construction.

Goldberg adopts both a reductionist and a non-reductionist approach to the description of constructions. Her description of the semantic value of constructions is a non-reductionist one. Goldberg takes the situation (event) expressed by the construction as the primitive unit of semantic representation. Constructions represent an event structure and the meaning of the component parts are defined with respect to the meaning of the event structure they are part of. As component parts of an event, their meaning and function depend on the meaning and function of the construction in which they appear. This also means that the meaning differences of the different structures in a construction are attributed to the construction itself, not solely to the meaning of the component parts.

Concerning the syntactic description of constructions, Goldberg's approach is reductionist in that Goldberg employs a set of atomic grammatical relations, such as subject and object, and also primitive syntactic categories, such as verb, in her description of syntactic relations (Croft and Cruse. 272). Goldberg (1995) presupposes a series of links not only between the components of the construction (semantic and syntactic links) but between constructions with similar syntactic and semantic properties as well. In Goldberg's theory, constructions are linked via inheritance links, through which the common syntactic and semantic properties are inherited.[1] The syntactic configurations of constructions are in most cases schematic (e.g. *Subj V Obj Obj2* in the case

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[1]   Inheritance links can be of several types: polysemy links that stand for the particular sense of a construction and the extension from this sense, subpart links, when one construction is a subpart of another construction and exists independently, and also instance links, when a particular construction is a special case of another construction. According to this distinction, Sentence (5) can be considered a polysemic extension of the central sense of the ditransitive construction *X causes Y to receive Z* to *X causes Y not to receive Z*, while Sentence (6) is an extension of the structure *X enables Y to receive Z*. As an instance for subpart links, Goldberg mentions the relation of intransitive construction to the caused-motion construction (Goldberg 1995).

(5) Joe refused Bob a cookie.
(6) Joe permitted Chris an apple.   *(Goldberg 1995)*

of the ditransitive construction); the schematicity of constructions shows the common syntactic properties of a certain type of construction (e.g. ditransitive constructions) that are inherited. Such links are also relations of generalization between constructions.

The inheritance and expansion of the semantic meaning between constructions are also done via inheritance links. For each type of construction, a central prototypical meaning is posited (e.g. 'real transfer' in the case of ditransitive constructions); from this central meaning, other semantic meanings are expanded (e.g. through polysemy links). These relations of inheritance and expansion motivate the presence of constructions with the same syntactic configurations, which, however, do not share the same meaning and function.

3.2.1. The role of the verb in a construction

Goldberg provides the meaning of the verb with respect to a semantic frame. Knowing the meaning of a word requires knowing the structure and semantics of the frame that it is associated with. Petruck (1996. 1) defines semantic frame as "any system of concepts related in such a way that to understand any one concept it is necessary to understand the entire system; introducing any one concept results in all of them becoming available."[2]

In Goldberg's interpretation (2006), verbs are defined according to rich frame-semantic meanings, where the semantics of the verb is specified with respect to elements of cultural and world knowledge. Positing rich frame-semantic knowledge for verbs accounts for their novel uses, which could hardly be interpreted without this background knowledge. To illustrate this, Goldberg (1995) gives Sentence (7) as an example. In order to understand this sentence, it is important to know that sneezing implies a forceful expulsion of air which can make the napkin fall off the table. Such background information is not covered by a simple decompositional lexical entry of a verb, as e.g. *X acts*. Lexical decompositional structures, such as *X acts, X causes Y to receive Z,* etc., do not capture all of what is intuitively the verb's meaning. They rather represent the syntactically relevant aspects of verb meaning, which in a constructional approach will be regarded as the verb's constructional meaning.

> *(7) Sam sneezed the napkin off the table.*   *(Goldberg 1995)*

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2   The notion introduced by Fillmore (1970) and then further developed in his theory of case grammar was understood as characterizing a certain scene or situation characteristic of the meaning of verbs. Dik (1997) defines a predicate frame as containing all the irreducible, unpredictable properties of predication that appears in the lexicon, with all the semantic and syntactic information that is necessary for the definition of the predicate. A predicate frame specifies the form and type of the predicate, the number of arguments the verb takes to form nuclear predications, as well as the semantic function of arguments (whether they are agents, patients, recipients, etc.).

Concerning the syntactic realization of the verb and its participant roles, Goldberg (1995, 2006) makes use of the notion of 'lexical profiling'. Lexical profiling indicates what participant roles associated with a verb's meaning are obligatorily accessed and function as focal points within a scene, gaining a special degree of prominence in a certain situation (Langacker 1991). It can be defined as "the representation of the foregrounded part of a frame, the participant, prop, phase or moment which figures centrally in the semantic interpretation of a sentence within which the frame is evoked" (Fillmore and Johnson 2000. 14).

The relation between an 'evoked frame' and a 'profiled entity' is a close one: the former provides the background information necessary for the understanding of a given lexical or phrasal item and the latter foregrounds a part of the frame that fits the semantic structure of the surrounding text or sentences (Fillmore and Johnson 2000).

Goldberg (1995) attributes the differences in the semantics of verbs to the semantic frames they evoke; the difference in the semantic frame then leads to a difference in profiling.

The example Goldberg brings to illustrate this involves the verbs 'rob' and 'steal': although the two verbs may appear to be synonymous (so that both of them may evoke the thief, the valuables, and the target), they take different arguments (sentences 8–13), which can be attributed to the fact that these verbs are semantically different. Consequently, this results in a difference in profiling. While 'rob' necessarily entails that the person robbed is seriously negatively affected, this is not true of 'steal'. According to Goldberg (1995), the verbs 'rob' and 'steal' have different semantic frames, and as such, different participant roles. While in the case of 'rob' the argument roles that are obligatorily accessed are 'thief' and the 'target' (the victim) (10), in the case of 'steal', it is the thief and the valuables that are profiled (12). The ungrammaticality of sentences (11) and (13) points to the different values of 'rob' and 'steal': 'rob' specifies the source (but not the quantity), whereas 'steal' specifies the quantity:

> (8) I stole a penny from him.
> (9)* I robbed him of a penny.
> (10) Jesse robbed the rich (of all their money).
> (11) * Jesse robbed a million dollars (from the rich).
> (12) Jesse stole money (from the rich).
> (13) * Jesse stole the rich (of money).   (Goldberg 1995)

3.2.2. The interaction between the verb and the aspectual construction

In many cases, the meaning of the verb seems to determine the meaning of the construction in which it appears. Nevertheless, there are many cases where

the resulting aspectual meaning is attributable to the construction itself, rather than the verb alone:

(14) Pat smiled her appreciation.   *(Goldberg 1997)*

In this sentence, the argument is not brought by the verb but by the argument construction. Similar is the case with several resultative double object constructions where the argument roles are not understood as inherently required by the verb (15–16).

(15) Dana cried her eyes out.
(16) The athletes ran the pavement thin.   *(Levin and Rappaport 2005)*

In order to account for such constructions, construction grammar adopts an event-semantic approach. The semantic frame of a construction is taken to represent an event type, e.g. *X causes Y to receive Z* (a ditransitive construction), with various semantic roles (argument roles) (patient, agent, recipient in the case of the ditransitive construction) that are not lexically filled (or partly filled) in advance but will be filled in by the integration of the verb and its participant roles into the frame of the construction. The verb enters its place in the construction with its 'core' or 'root' meaning, which can be defined as its minimal meaning with its associated arguments (Goldberg 1997. 191).
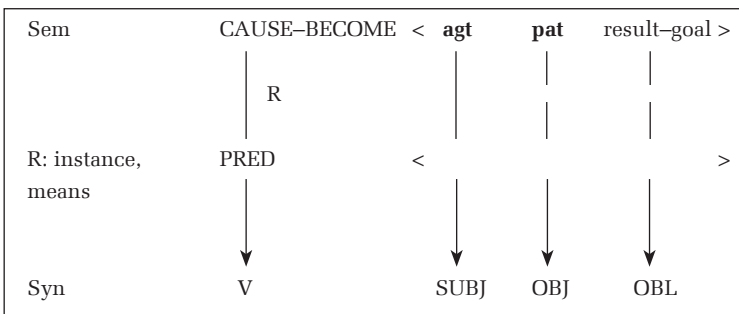
(source: Goldberg 1995. 189)

Figure 9. The relation between the verb and its constituents within the resultative construction

In the figure above, the top line represents the semantic relations of the participants in the construction. The argument roles in bold (agent and patient) are profiled, representing entities in a verb's semantics that are "obligatorily accessed and function as focal points within the scene, achieving a special degree of prominence" (as cited by Langacker 1987) (Goldberg 1995.

44), the solid lines indicating that the semantic role must be fused with an independently existing verbal participant role. OBL stands for oblique and dotted lines indicate additional participant roles.

Goldberg defines the integration of the participant roles of the main verb with the argument roles of the construction as 'fusion', which she defines as "the simultaneous semantic constraints on the participant roles associated with the verb and the argument roles of the construction" (Goldberg 1995. 50).

The term itself is borrowed from Jackdendoff (1990), who uses this notion to describe the integration of the verb with its participant roles. Fusion is interpreted as a form of 'grammatical blending' in cognitive space grammar (blending can be defined as conceptual integration, the matching of two input spaces and projecting them into a third space, the blend) (Fauconnier and Turner 1996).

In Goldberg's work (1995, 2006), the fusion between the participant roles of the verb and the argument structure of the construction is governed by some principles, like the Semantic Coherence Principle and the Correspondence Principle. The Semantic Coherence Principle determines which roles are semantically compatible and can be fused. According to this principle, two roles r1 and r2 are considered compatible if r1 can appear as an instance of r2. Thus, for example, in a situation like (17) *Joe kicked Bill the ball*, the kicker participant may be fused with the agent role of the construction as the kicker role can be construed as an instance of the agent role.

The Correspondence Principle states that all participant roles that are lexically profiled must be fused with the argument roles of the construction. It follows from this that each profiled role of the verb must be accounted for by the construction. The relation between the participant roles of the verb and the argument structures of the construction can vary from cases where the verb is put to a one-to-one correspondence with the argument roles associated with a construction to cases where there is a mismatch of roles, so that it comes to no one-to-one correspondence between the argument roles of the verb and the participant roles of a construction. In this latter case, certain roles are added to the verbs by the constructions themselves; these roles will then be attributed to the construction, and not to the verb. Thus, e.g. in the example above, *Joe kicked Bill the ball,* the recipient role of Bill is contributed by the construction, and not by the verb.

The fusion between the participant roles of verbs and the argument roles of constructions presupposes that they be causally or force-dynamically related. This is in accordance with the Causal Relation Hypothesis, which states that "the meaning designated by the verb and the meaning designated by the construction must be integrated via a (temporally contiguous) causal relationship" (Goldberg 1995. 61).

According to this principle, the verb inherently designates a particular aspect of the aspectual construction in which it appears (Goldberg 1995). This is realized by a relation of instance, so that the event type designated by the

verb is an instance of a more general event type designated by the construction. To illustrate this point, Goldberg gives several examples where the meaning of the verb is an instance of the meaning expressed by the construction. One such an example is ditransitive construction (18) *She handed him the ball*, where the meaning expressed by the verb (a transfer event) is also the meaning associated by the construction. Another example is construction (19) *She put the phone on the desk* – here also, the meaning expressed by the verb, a type of caused-motion corresponds to the caused-motion meaning associated with the construction.

Exceptions to this causal relation are cases where there is a mismatch between the frame of a construction and the entailment of the verb. In Sentence (20), for example, the frame of the aspectual construction *X causes Y to receive Z* is not entailed by the matrix. In this case, the verb negates the positive meaning of the construction. Goldberg (1997) states that although in this case the causal relation between the verb and the construction is not realized in a straightforward way, negation is similar to causation in the way that they are both 'force-dynamic', which means that they involve energetic interactions, forces, counterforces, and tendencies (Goldberg 1997. 393). (A force dynamic scenario presupposes two causally related events (a manipulator that acts on a manipulee) that are compressed into a force-dynamic event).) (Broccias 2006)

(20) *Pat refused Chris a kiss.*   *(Goldberg 1997)*

Concerning the realization of complement forms, Goldberg interprets it as resulting from the integration of the participant roles of the matrix (specified by its semantic frame) into the structure of the construction (the argument roles of the construction).

In her theory of construction, Goldberg focuses on the analysis of ditransitive constructions. By giving examples of cases where the ditransitive construction is not projected by the matrix, she points to the necessity of analysing the complement forms at the level of the entire construction.

3.3. A possible approach to the analysis of aspectual complementation

3.3.1. Overview of the approach

In conformity with the principles of construction grammar, constructions in this approach will be defined as symbolic units, pairings of form with meaning. An important criterion in the definition of constructions will be

that they represent a linguistic unit between a certain form and meaning (an integrated whole). Constructions are considered to be present at the level of a phrase and at the level of the clause (sentence level) as well. The term construction will refer to both the description of phrases and the sentence in which they appear. In the case of aspectual complementation, both the first VP (the aspectual verb) and the second VP (the complement construction) will be treated as constructions; at the same time, they are parts of a construction as an entire whole (the aspectual construction in which they appear).

Both the semantic value of the aspectual verb and that of the aspectual construction will be considered to have their own semantic frame.

The semantic frame of an aspectual construction specifies the syntactic realization of the construction with its argument roles (e.g. *NP VP1 VP2*). It also contains all the semantic information necessary for the interpretation of the construction, with the semantic value of its argument roles (the semantic value of the matrix, the complement construction, and the subject). The construction as a whole has an event structure, and this structure is motivated by the semantic value of the verb to a high degree. Yet, the meaning of the construction as a whole is taken to be more complex than the one specified by the verb.

Following Goldberg (1995, 2006), who asserts that the semantic frame of the verb should be defined with respect to rich frame-semantic knowledge, the semantic frame of the verb will be considered to contain all the necessary information that is needed for the definition of the meaning and the function of the verb in all contexts. It contains both syntactic and semantic information concerning the realization of its participant roles (the number and syntactic configuration of its arguments and also their semantic role (e.g. if the subject can be inanimate or only animate, if it can receive agentive roles, what complement forms it can be followed by).

The meaning of the matrix entering the construction will be considered in terms of its syntactically relevant, constructional meaning (term also borrowed from Goldberg (1995, 2006)), while the aspectual construction in which the verb gets integrated also contains meaning facets of the respective aspectual verb. Perspectivization is considered to play an important role in this respect. The different component parts of the frame-based knowledge are highlighted or profiled, depending on the construction it appears in (Taylor 2003).[3]

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3   Taylor (2003. 93) gives as an example of perspectivization the different references that the word 'Monday' can have; while Monday can refer to a position in a seven-day week (e.g. in *My birthday falls this year on Monday*), it can also refer to 'Monday' as a day following the weekend' (in e.g. *Monday morning feeling*), etc.

3.3.2. The relation between the matrix and the aspectual construction

The meaning of the aspectual construction is taken to be compositional to a high degree. Considering compositionality, Goldberg (2006. 221) assumes that this results from the integration of the component structures into the meaning of the construction, rather than from the semantic value of the matrix alone.[4]

Her understanding of compositionality is in terms of integration, so that compositionality is interpreted as resulting from the integration of the meaning of the verb with the meaning of the construction it is part of. The meaning of an aspectual construction is complex, containing not only the meaning specified by the matrix but also the meaning of the complement construction and the meaning (semantic role) of the subject.

Bearing in mind the subtle differences that exist between the aspectual constructions with a similar semantic value (e.g. *start + to infinitive* vs. *start + -ing*), the dissimilarity between them can not be attributable solely to the semantics of the aspectual verb in question. On the contrary, I believe that the meaning of an aspectual construction is compositional resulting from the integration of the verb and their complements into the macro-construction they are part of. An aspectual verb can appear in several constructions (e.g. *begin* and *start* with both the *to infinitive* and *-ing* constructions) provided the meaning of the verb and that of the construction are compatible. The appearance vs. non-occurrence of an aspectual verb with a complement form is determined with regard to the compatibility vs. non-compatibility of the meaning and function of the matrix with the meaning of the entire construction. If the meaning of the matrix and the construction as a whole are compatible, it results in the integration (in Goldberg's terms 'fusion') between the meaning of the matrix and the construction it is part of. The semantic composition is seen to result from the unification of semantic features.

The integration or fusion of the parts into the construction as a whole can be most easily understood in terms of a part–whole meronymic relation. Croft and Cruse define meronymy as follows: "if A is a meronym of B in a particular context, then any member a of the extension of A maps onto a specific member b of the extension B of which it is construed as a part or it potentially stands in a construed relation of part to some actual or potential member of B" (Croft and Cruse 2004. 160). A part–whole relation where a construction is understood to be part of another construction is considered as primary between constructions (Taylor 2003. 226).

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4   Goldberg (1995 and 2006) argues against treating the verb as the semantic head of the sentence in all cases. Distinguishing between the prototypical meaning of the verb and that of the construction in which it appears, Goldberg (2006. 224) considers that it is the construction that entirely determines the resulting meaning. This means that the construction itself is treated as the semantic head.

Croft and Cruse give multiple reasons why meronymy is more complex than a simple part–whole relation. First, unlike simple 'part–whole' relations where simply two individual entities are linked, meronymy is a semantic relation between the meaning of the part and that of the whole. An important characteristic of meronymy is that it is a relation of construal, which may not be the case of other part–whole relations (e.g. hyponymy, which only reflects class inclusion). Expressing a part–whole relation, meronymy stands close to taxonomic relations. Yet, it is also different from them, so that unlike taxonomic relations, which are hierarchical, with meronymy, the part and whole relations are not hierarchical (the structuring of a meronymy does not originate in a hierarchy of classes).

3.4. The use and function of the *to infinitive* and *-ing* constructions

3.4.1. The *-ing* construction

-ing can have both adjective-like and noun-like uses. Its use is adjective-like when it functions as subject complement (21), as object complement (22), as modifier in absolute free adjuncts (23), or as attributive modifier (24). *-ing* has a noun-like use when it plays the role of the subject (25), a direct object (26), or when it appears as object of a preposition (27). In case the construction has a noun-like function yet it does not take the possessive, which would be characteristic of noun-like uses, it is considered as half-gerund (Duffley 2006. 17). An example of this is Sentence (28) with the common-case form of the pronoun.

> *(21) He stood brooding in the corner.*
> *(22) I found him brooding in the corner.*
> *(23) The two still knelt, tears running down their cheeks.*
> *(24) The man writing the obituary is my friend.*
> *(25) Giving up the violin opened a whole new career for Ilona Schmidt-Seeberg.*
> *(26) He was enjoying talking with her.*
> *(27) I hope you are not angry with me for coming.*
> *(28) Them coming here is no reason for you to leave.*   *(Duffley 2006)*

An important question with respect to *-ing* has been related to its status as gerund, verbal noun, or participle. A significant difference between gerunds and verbal nouns is that gerunds have both verbal and clausal properties, as

well as nominal properties, while verbal nouns (or *ing-of* constructions), by contrast, only have nominal properties (Cornilescu 2003). Although they are all DPs, gerunds and verbal nouns differ in their internal structures: while verbal nouns are pure DPs, gerunds also embed a VP structure. That gerunds are more verbal in nature than verbal nouns is shown by their ability to assign accusative case to the direct object, whereas verbal nouns need the preposition 'of' in this case (30). Another difference which also points to the more verbal nature of gerunds is the impossibility of co-occurrence between the perfect auxiliary 'have' and the 'of'-marked object (32):

(29) *Him / his selling the house at a good price pleased her.*
(30) *His selling of the house at a good price pleased her.*
(31) *Him / his having criticized the book came as a surprise.*
(32)* *His having criticized of the book came as a surprise.*

(Cornilescu 2003)

Another important use of *-ing* is its participial use, when *-ing* is a purely verbal form (e.g. the progressive construction). The participle functions as a modifier: a verb modifier or a noun modifier. It differs from gerunds in being a purely verbal construction (it is a clause and not a DP); it is also often subjectless, so that its subject is understood to be coreferent with the main clause subject (33). Wolf (1973) names as the main criterion to differentiate between the gerund and participial *-ing* the ability of the gerund to appear with a possessive pronoun or a genitive case, which is not possible for the participle.

(33) *Waking up the next day, I found the weather was fine. (participle)*
(34) *I do not like his / him coming here so often. (gerund)*   *(Wolf 1973)*

The *-ing* construction in complementation is a gerund, having both noun-like and verb-like properties. Apart from the interpretations that regard the meaning of *-ing* in complementation as closely related to nominalization (the *-ing* is seen as a nominalized form, e.g. Langacker (1991 and 1999) and Duffley (2006) relate the schematic meaning of *-ing* as that of a direct object)), there are also interpretations (Wierzbicka 1988, Freed 1979) which ascribe temporal values to *-ing*.

3.4.2. The *to infinitive* construction

The *to infinitive* construction as complement can also have a variety of uses. A very frequent use is the subjectless infinitive construction (35), also called as a PRO-TO construction, or the control construction (Cornilescu 2003). This construction lacks an overt subject and the implicit subject is understood

to be coreferential with the subject of the main clause. Another use is the *for-to infinitive* construction, which is also referred to as a 'control' construction. In this use, the infinitival clause has its own subject, different from the subject of the main clause (36).

(35) *She promised her mother to study for the exam.*
(36) *I hope for him to win the presidential election.*   *(Cornilescu 2003)*

Another use of the *to infinitive* concerns the cases when it appears as a raising construction. In these constructions, the *to infinitive* may have its own subject which then surfaces either as subject (the Nominative + infinitive construction) (37) or as object of the main clause (the Accusative + Infinitive construction) (38).

(37) *Melvin appears to speak fluent Japanese. (nominative + infinitive)*
(38) *They proved him irrefutably to be a liar. (accusative + infinitive)*
                                                        (Cornilescu 2003)

To infinitives are closely related to modality. They are considered to oppose the indicative, so they are not compatible with a totally realistic basis (Cornilescu 2003. 236). *To infinitives* can have either the (+*realis*) feature (after weak intensional predicates like 'know', 'understand', 'say', 'tell', 'assert', 'promise', etc.) or the (-*realis*) feature after strong intensional verbs, such as 'want', 'desire', 'would like', etc. An important difference between weak intensional and strong intensional verbs is that weak intensional predicates introduce only one possible situation or possible world in which the complement clause is taken to be true. The complement clause is entailed by the truth of the main implicative or factive verb.

Strong intensional predicates, by contrast, introduce a set of possible worlds, where the complement is intensionally anchored, so the truth of the complement is not at stake (Cornilescu. 235). After aspectual verbs, the *to infinitive* complement constructions are (+realis).

An important question concerning *to infinitive* constructions is whether they are tensed or untensed complements. An important criterion to differentiate between tensed and tenseless constructions is the ability vs. non-ability of complement constructions to establish their own RT (reference time). If complements are tensed, they establish their own RT, denoting a different time from that of the main clause. Raising infinitive structures are tensed constructions: they allow for distinct frame adverbials as sentence (39) shows. The appearance of control infinitive structures with frame adverbials is more restricted; (control) infinitive constructions having the feature (+realis) are tenseless. Complement constructions after aspectual verbs (40–41) also appear to be tenseless.

(39) Now I firmly believe him to have lied yesterday.
*(40) * John managed to solve the problem next week.*
*(41) * Yesterday, John began to solve the problem tomorrow.*

(Cornilescu 2003)

Although the complement constructions after aspectual verbs will be attributed primarily non-temporal values, it will be argued that there is a certain time relation between the main clause and the complement clause. The situation denoted by the complement clause can be considered to develop out of the situation denoted by the main clause (Cornilescu. 243). Portner (1994) (as cited by Cornilescu. 242) defines the meaning of this form as closely related to the time of the main clause. The main clause denotes an RT; Portner (1994) believes the complement clause denotes an alternative situation to the situation expressed by the main clause. This means that the situation denoted by the complement clause develops out of the RT of the main clause; it is "a continuation of the reference situation introduced by the main verb" (Cornilescu. 242).

3.5. The semantics of the *to infinitive* and *-ing* constructions

Following Kleinke (2002), the complement forms *to infinitive* and *-ing* will be attributed both a schematic and a prototypical meaning. The schematic meaning is based on the notion of schema, whereas the prototypical meaning on the notion of prototype as understood by Langacker (1991). Langacker interprets prototype as a typical instance of a category; a schema, by contrast, is seen as an abstract categorization of a category, being fully compatible with all members of the category.

The two meanings differ from each other in several respects: while the schematic meaning of the complement constructions contains the more general meaning of the constructions, available in all instantiations, the prototypical meaning is construction specific and greatly depends on the semantic value of the matrix. The schematic meaning of the constructions can be defined, on the one hand, as the relation between *to* and the bare infinitive, on the other hand, as between *-ing* and the bare infinitive. The difference between the two constructions is aspectual and can be defined in opposition: while *to* is defined to express an exterior viewpoint (viewing the complement verb from the exterior), *-ing* expresses an interior viewpoint (viewing the complement verb from within).

The prototypical meaning can be defined as the relation between the *to infinitive* and the *-ing* construction with the semantic value of the matrix and

also that of the subject. The prototypical meaning of the constructions results from the integration of subconstructions into the macro-construction as a whole. The tenseless constructions, *to infinitive* and *-ing,* will be temporalized after they are embedded into the aspectual construction.

3.5.1. The schematic meaning of the *to infinitive* and *-ing* construction

The schematic meaning of complement constructions will be defined with respect to viewing. Viewing can be considered to be the primary function of the *to infinitive* and *-ing* construction. Motivated by their different profile (path–goal schema by the *to infinitive* and container schema by the *-ing* construction (Lakoff 1987), the two constructions are considered to express two different ways of viewing: from the exterior, in the case of the *to infinitive*, and from within in the case of *-ing*. The viewing function of the constructions results from the relation between *t*o and the infinitive, on the one hand, while, on the other hand, between *-ing* and the infinitive. In order to determine the function of *to* and also *-ing* with respect to the bare infinitive, it is necessary to define the meaning and function of the bare infinitive.

The bare infinitive describes an event, an occurrence, or a state in its entirety, with the beginning, middle, and end parts. This entirety can be considered to be 'bound in time' (Kleinke 2002. 109), which means the event represented by the infinitive is imagined to evolve in time. It has a part–whole schema, where the parts are closely connected to the whole. Although the bare infinitive contains all phases of the occurrence, in many cases, it profiles (brings into focus) only one temporal segment of the occurrence which corresponds to the initial phase of perception. This foregrounded segment contains all important facets of the occurrence, so that the viewer can make conclusions about the entire occurrence of the event (Kleinke. 110). Thus, in the case of the bare infinitive, what is brought into focus is the transition from the non-existence to the existence of a state of affairs. The sentences below with the bare infinitive thus show that the state of affairs which had not existed before came into being:

> *(42) I saw the girl lie on the bed.*
> *(43) We saw her enter the building.*
> *(44) I heard them go out.*   *(Kleinke 2002)*

The function of *-ing* with respect to the bare infinitive is to express a way of viewing (imperfective viewpoint) from within. *-ing* is considered to have a container schema (which has interior, boundary, and exterior parts (Lakoff 1987)) where all parts of the event governed by *-ing* are present. In contrast to

the bare infinitive, where the entirety of the event is bound in time, the event represented by the *-ing* construction is not 'bound in time'. On the contrary, the *-ing* suspends the 'temporally bound' reading of the bare infinitive, imposing on it a profile without endpoints. The profiled entity is seen as being stativized; so, no parts can be identified that would bring the event further on (beginning and closing phase). This is well illustrated by the difference between sentences (45–46). While in (45) the rocket is only seen in flight, in (46), the preparation before launch as well as the take-off itself are also put in profile.

(45) *Come on in! We are seeing Apollo 19 taking off.*
(46) *Come on in! We are seeing Apollo 19 take off.*   *(Kleinke 2002)*
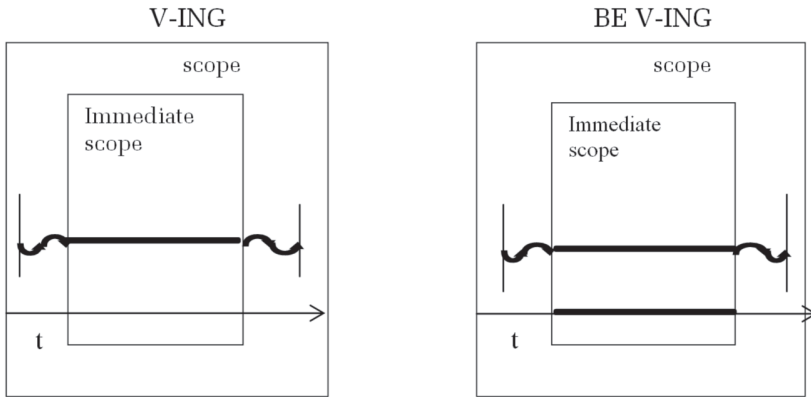
(source: Langacker 1990. 92)

Figure 10. The schematic meaning of *-ing* and *be -ing* as understood by Langacker

Similarly to *-ing*, the primary function of the *to infinitive* construction is also considered to be aspectual. As is the case with the *-ing* construction, the schematic meaning of the *to infinitive* will be defined with respect to viewing; in contrast to the *-ing* construction, however, which expresses a viewpoint from within, the *to infinitive* construction expresses an 'exterior viewpoint'.

The schematic meaning of the *to infinitive* construction is realized by the relation between *to* and the bare infinitive. The particle *to* has a source–path–goal schema (Lakoff, 1987) expressing a movement towards the realization, the coming into being of the event expressed by the complement verb. Within this construction, '*to*' profiles the movement that leads to the realization of the event expressed by the infinitive.

This function of the *to infinitive* construction is greatly motivated by the origin of this construction. Before the preposition *to* turned into a tense/modal marker, its original meaning had been to express a 'direction'/'goal'/ or

'purpose' (Cornilescu 2003). The original 'goal', 'directional' meaning is still present in the meaning of the *to infinitive* construction and has served as a basis for the definition of this construction by several linguists (Quirk et al. 1985, Duffley 2006).[5]
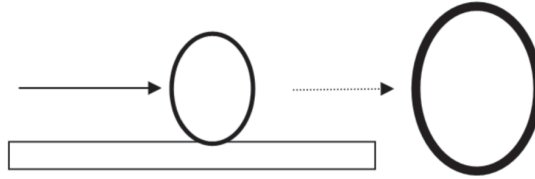
(source: Boas 2003)

Figure 11. The structure of the *to infinitive*

3.5.2. The prototypical meaning of the *to infinitive* and *-ing* construction

As I see it, the *to infinitive* and the *-ing* constructions, which are primarily non-temporal, tenseless constructions, will be temporalized after they get embedded within the entire aspectual construction (the complement construction can be defined as the continuation of the R situation expressed by the matrix).

Linguists who analyse the semantic values of the *to infinitive* and *-ing* constructions after aspectual verbs usually ascribe them opposite values. Freed states that after aspectual verbs the *to infinitive* construction expresses a generic or a series reading, the *-ing*, by contrast, an ongoing, durative occurrence. She gives several examples to illustrate these meanings (48–49). Though this opposition (generic or serial vs. a single, durative occurrence) holds in many cases, there are also cases when the opposite is true (the *to infinitive* expressing an ongoing event, *-ing* expressing a set of events (Cornilescu 2003, Duffley 2006). Thus, Sentence (50) with the *to infinitive* expresses a single event, Sentence (51) with *-ing* a series of events (habitual reading):

(48) While the man held a gun on her she continued counting/? to count out hundred dollar bills.

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5   Quirk et al. (1985) define the infinitive marker *to* as related to the spatial preposition *to* by metaphorical connection. They illustrate this by a series of examples (Duffley 2006): John went ......*to the pool* (direction), ...*to the pool for a swim* (direction + purpose), ...*to swim* ('metaphorical connection of infinitive marker).
     Duffley (2006) defines the schematic meaning of *to* as the notion of a movement leading up to a point. This movement can be either physical or mental; (47) expresses a mental movement:

     (47) He compared the president to Adolf Hitler.   *(Duffley 2002)*

(49) She told him not to visit any more. At first, he ignored her and continued to visit/ ? visiting anyway. Finally the visits stopped.   *(Freed 1979)*

(50) All of a sudden she started to run towards the car.
(51) He started smoking when he was 13.   *(Duffley 2006)*

There are also other differences noted between the *to infinitive* and *-ing* constructions after aspectual verbs. Due to its modal character, the *to infinitive* construction in aspectual complementation is taken to refer to potential events (Cornilescu. 471). Cornilescu states that the *to infinitive* in aspectual complementation expresses dispositional properties of the subject, that is, what the subject *can* do, not what the subject is doing at some point in time. This, according to her, is also shown by the frequent occurrence of *to infinitives* with statives, habitual predicates or psychological verbs (52–53):

(52) Edward began to miss his friends.
(53) Man is beginning to understand himself better.   *(Cornilescu 2003)*

The idea of potentiality is closely related to that of futurity; interpretations that attribute a temporal value to the *to infinitive* (the sense of futurity) also ascribe the function of the *to infinitive* to its modal character (e.g. Wierzbicka (1988) defines the meaning of the *to infinitive* as expressing the idea of future expectations and wanting, while Verspoor (1990) as expressing prior intention). Quirk et al. (1985) also assume that the infinitival complement clause contains a future-oriented modality; similarly, Wierzbicka states that only such verbs can appear with the *to infinitive* that have in their sense the meaning of future orientation.

In contrast to the *to infinitive*, the *-ing* construction after aspectual verbs makes reference to a specific event or series of events that are locatable in space and time (Cornilescu. 471). The *-ing* construction does not express potentiality; rather, it expresses the actuality of the event that gets started, continued, or finished by the time phase expressed by the matrix verb. The entity profiled by the *-ing* construction can be defined as being simultaneous with the time phase expressed by the matrix verb.

This simultaneity will be interpreted in the sense of Wierzbicka (1988), who assumes that gerunds imply sameness of time whenever they combine with temporal semantic types such as actions, processes, and states. Wierzbicka states that in the case of aspectual verbs, this simultaneity can manifest itself in three different ways: in the case of inceptive aspectual verbs, the moment referred to by the main verb can be presented as identical with the beginning of the stretch of time referred to by the complement (e.g. *I began / started talking to her*); in the case of continuative aspectual verbs, it can be interpreted as

co-existent with the moment expressed by the complement verb (e.g. *He kept / continued working*). Finally, in the case of egressive aspectual verbs, the moment expressed by the main verb is identical with the end of the stretch of time referred to by the complement (e.g. *I stopped / finished peeling potatoes*).

Another difference between the *to infinitive* and *-ing* construction when following aspectual verbs is in terms of duration. While in the case of the *to infinitive* there is no expectation of duration, in the case of *-ing*, the event is expected to last. That *-ing* is related to duration has been noted by several linguists (e.g. Dixon (2005) defines *-ing* as expressing an activity taking place over a period of time).

The duration expressed by the *-ing* construction is not a property of *-ing* alone, but it is a property of the entire aspectual construction. When followed by *-ing,* the aspectual construction expresses unbounded temporal progress. This means that the duration of the construction cannot be divided into segments (no beginning or ending phase can be separated within the progress of the construction). As a temporal property, duration can be defined as evolving simultaneously with an axis of orientation (the RT expressed by the matrix verb).[6]

3.6. The eventuality type of the complement verbs

The analysis of aspectual complementation cannot be considered complete without taking into consideration the eventuality type of the complement verb.

As part of the aspectual construction, the event type of the complement verb is closely related to the semantic value of the matrix and the semantic value (semantic role) of the subject. That there is a close connection between the form of the complement construction (*to infinitive* or *-ing*), the event type of the complement verb, and the matrix has been noticed by many linguists, as for example Gramley (1980) and also Schmid (1996). Since it is presupposed that the subject of the aspectual construction also has an impact on the value of the aspectual construction as a whole, the semantic role of the subject will also be *analyse*d.

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6   In his study on duration, Hollósy (1980) differentiates between two types of duration: in its first sense, duration can be defined as referring to unbounded temporal progress; in its other sense, duration expresses an extent of time that can be divided into segments (Hollósy 1980. 30). It is the first type of duration that is expressed by the progressive form *-ing*.

CORPUS METHODS AS A MEANS OF ANALYIS OF ASPECTUAL VERBS

4.1. Corpus linguistics: A short introduction

The beginnings of corpus linguistics have been marked by empirical and statistical research carried out on non-digital corpora. They go back as far as the first Bible concordances (*Cruden's concordance to the Holy Scriptures* (1736), *Strong's concordance* (1894) (the exhaustive concordance of the Bible)) as well as the corpora used in language acquisition (roughly 1876–1928). Then, in the 1950s, many linguists base their research on the empirical analysis of different corpora like *The Structure of English*, a corpus-based grammar (Fries 1952) or Ronald Quirks's (1961) work, *Towards the Description of the English Language*, which contains written and spoken texts (100 in number) to analyse the different aspects of English grammar.

The appearance of digital corpora, such as *The Brown Corpus* by Francis and Kučera (1964), *The LOB (Lancaster-Oslo/Bergen) Corpus* by Geoffrey Leech in the 1970s, or *The Birmingham Collection of English Text* (which is to grow into the Bank of English later) by COBUILD (Collins and the University of Birmingham), which leads first to the compilation of the Collins COBUILD English Language Dictionary (1987), facilitates the research based on empirical and statistical methods.

After a period of time, when empiricism fades under the 'cognitive revolution' (Chomsky's criticism of the methods of corpus linguistics, viz. that corpora cannot be representative of an infinite language) in the 1990s, the use of empirical and statistical methods in language analysis also spreads. In addition to already existing corpora, other electronic corpora are compiled (e.g. the British National Corpus (1985), a 100-million sample corpus, consisting of 90 million written and 10 million spoken words).

Today, many areas of linguistics use corpus-based data. Corpus-based analyses are carried out in lexicography, grammar, semantics, pragmatics, psycholinguistics, sociolinguistics, language teaching, etc. In all these areas of linguistics, corpus research enables an adequate approach to the phenomena in question since the analyses are based on authentic language data and not on made-up examples. The possibility of a qualitative analysis (where the linguistic phenomena are *analyse*d in detail, showing whether a linguistic

phenomenon is relevant or not) and a quantitative analysis (statistical analysis) leads to an appropriate analysis of all language phenomena, including those that are rare and could not be given a proper analysis without empirical and statistical methods.

The existence of historical corpora (*The Helsinki Corpus*, *The ARCHER Corpus*) also makes possible a diachronic analysis of language, giving a more appropriate picture of the variations and changes that are taking place in language (e.g. grammaticalization).

Corpus linguistics can be viewed as a methodology which facilitates and makes possible the analysis of many linguistic phenomena. The use of different concordance programs enables the search for tags, words, and also grammatical categories (nouns, verbs, verb phrases, etc.).

4.2. Corpora. Definition and characteristics

According to McEnery and Wilson (1996), any collection of more than one text can be called a corpus. Grefenstette and Kilgarriff (2003. 2) declare that "a corpus is a collection of texts when considered as an object of language or literary study."

At present, there are many varieties of corpora: written corpora (e.g. *The Brown Corpus*, *The LOB Corpus*), spoken corpora (*The London-Lund Corpus*, the *IBM/Lancaster Spoken English Corpus*, corpora of mixed type (containing both spoken and written texts, e.g. *The British National Corpus* (BNC) contains 90% written part, 10% spoken part)). A corpus can be synchronic or diachronic (an example of a diachronic corpus is the *Helsinki Corpus of the English Language*), monolingual or multilingual (a multilingual corpus is the English-Swedish Parallel corpus or *The Crater Corpus*, containing French, English, and Spanish texts (cf. Szirmai 2005. 78)), general or more specific corpora, finite-size corpora and monitor corpora (corpora that constantly grow – cf. McEnery and Wilson (1996)), etc. Corpora today are available in many languages: besides English corpora, there are also Hungarian (*Magyar Nemzeti Szövegtár*), German (*The Freiburger Corpus*), French (*The PAROLE French corpus*), Serbian (*The corpus of the Serbian language*), Croatian, etc. corpora available.

The main characteristics of a corpus are sampling and representativeness, finite (and usually fixed) size, machine-readable form and standard reference (criteria induced by McEnery and Wilson (1996) – cf. Grefenstette and Kilgarriff (2003)).

Sampling and representativeness have a great importance in data collection. Depending on the aim of analysis, the type of texts that are collected and sampled can vary (e.g. literary texts, newspaper articles, etc.). In order to represent an appropriate basis for research, a corpus needs to be representative

of the language in study. This means that it should include not only frequent linguistic phenomena but rare ones as well.

The representativeness of a corpus is closely related to its size. How big a corpus should be for an appropriate analysis of a linguistic phenomenon cannot really be determined: however, a corpus should be large enough for any linguistic analysis; a small corpus may not offer enough information on the relevance of a certain linguistic phenomenon.

Another question is also if a corpus has a finite or non-finite size. Corpora that have a finite size can serve as a standard reference for further research. By comparison, corpora that do not have a finite size (monitor corpora) cannot be considered such a reliable source of data. Finally, the requirement that a corpus should have electronic format did not have such important relevance in the past (when 'corpus' was mainly used in reference to printed text), but today there are very few corpora (if at all) that do not exist in electronic form. The advantage of electronic corpora is that data can easily be accessed and sampled by the use of concordance programs, also called concordancers.

Concordance programs turn electronic texts into databases that can be then searched for particular words and parts of words (affixes) as well as combinations of words (collocations). Concordancers can show all the instances of a chosen word in their contexts, a procedure also called as KWIC (key word in context). The instances can be displayed in various ways, depending on the interests of the researchers (how much of the surrounding context (what span) the researcher is interested in).

Through concordance programs, also such information as the frequency of a certain word or combination of words can be obtained. The high or, on the contrary, the low frequency of a certain phenomenon shows its relevance and also mirrors the changes (tendencies) that are taking place in a language.

Concordance programs can be used effectively in linguistic research after the corpus is annotated, the most common form of annotation being grammatical tagging, which is the procedure of adding a grammatical category to each word in the corpus. While annotation can be done by hand, there are also automatic tagging programs, like CLAWS, which has been developed for the annotation of the LOB corpus. Other forms of annotation are parsing (syntactic labelling), which allows for syntactic analysis of texts, or lemmatizers, which allow for a more fine-grained search of texts, transforming words into their dictionary form. An annotated corpus also contains information on the text (about the genre, date of publication, etc.).

4.3. A corpus-based approach to aspectual complementation

An important advantage of applying corpus linguistic methods to the phenomenon of aspectual complementation is that corpus methods offer natural language data on the occurrence of aspectual verbs and their complement forms. The semantics of an aspectual construction is due not only to the semantic value of the aspectual verb but also to the semantic value of the other components of the construction. Because of this, it is necessary that the context in which the respective aspectual verb appears be *analyse*d. An appropriate analysis of aspectual complementation can be done through a qualitative and a quantitative analysis of the aspectual verbs and their complementation forms.

A qualitative analysis helps to identify the phenomena that are taking place in aspectual complementation. By a qualitative analysis, an overall picture can be obtained on the context aspectual verbs appear in, that is the complement forms they are followed by (*to infinitive* or *-ing* construction), the situation type of the complement verb (if it is a state verb, an activity, accomplishment or achievement), and also the semantic role of the subject.

Quantitative research is also necessary since it gives information on the frequency of the data observed. In order to obtain a sufficient amount of data, necessary for conclusions to be drawn, the corpus needs to have a considerable size.

Because of the subtlety of aspectual complementation (the differences between the complement forms of aspectual verbs seem very subtle), the methods of corpus linguistics have been considered important tools to obtain a more appropriate understanding of the phenomena involved. The qualitative analysis of aspectual complementation has been based on several corpora within the ICAME project (Brown Corpus, FLOB, LOB corpora). For statistical data, the British National Corpus, BNC, has been consulted. Besides the corpora mentioned, the web has also been used as a corpus in this work. For this purpose, data on aspectual verbs and their complement forms have been obtained with the help of a concordance program called Webcorp. In what follows, a short description will be given of the corpora used in this work.

4.3.1. The ICAME Project

The ICAME project contains 18 different Corpora (including Brown, LOB, FLOB, Helsinki, etc.) with a size of about 14 million words. These texts are examples of both written and spoken corpora, ranging from present-day English to historical corpora. Of these corpora, the Brown corpus, LOB, FLOB, and FROWN corpora have been *analyse*d in greater detail.

The *Brown Corpus* was the first modern, computer-readable general corpora, a compiled selection of current American English. Compiled in 1961 by W. N. Francis and H. Kučera, the corpus contains 500 texts from different text categories (press, religious texts, fiction, etc.). The total length of the corpus is about 1,000,000 words. Today, this size can be considered to be rather small, as compared e.g. to the BNC, which has more than 100,000,000 running words.

Table 5. The text classes of the Brown and LOB corpora

Text class	Size of texts	
	BROWN	*LOB*
Press: Reportage	44	44
Press: Editorials	27	27
Press: Reviews	17	17
Religion	17	17
Skills, trades, hobbies	36	36
Popular lore	48	48
Belles-Lettres, Biography, Essays	75	75
Miscellaneous	30	30
Learned	80	80
General Fiction	29	29
Mystery	24	24
Sci-Fi	6	6
Adventures	29	29
Love stories	29	29
Humour	9	9
Total: each corpus 500 texts		
Each text – 2,000 words; total – about 1 million both corpora		

(source: http://www.cs.ut.ee/~koit/SS02/KASILEHT.rtf)

LOB (The Lancaster-Oslo/Bergen Corpus) is the result of co-operation between the University of Lancaster, the University of Oslo, and the Norwegian Computing Centre for the Humanities at Bergen. It was completed in 1978. The aim of the project was to assemble a British English equivalent to the Brown University Corpus of American English. The year of publication (1983-tagged version) and the sampling principles have been identical to those of the Brown corpus (just like the BROWN corpus, LOB contains fifteen categories of texts that are categorized the same as by the BROWN corpus). Also, the size of the corpus is about the same as that of the Brown Corpus (about a million words containing about 500 printed texts of about 2,000 words each).

The *FLOB* and *FROWN* corpora were a project of the University of Freiburg carried out in the early years of the 1990s. They are the outcome of the attempt to compile a corpus of the size of the Brown and LOB corpora, which would contain written English texts of the 1990s. The sampling techniques by the compilation of the two corpora have been similar to the ones used in the case of the BROWN and LOB corpora (random selection of the titles from bibliographical sources). Similarly to these corpora, the FLOB and FROWN corpora have fifteen categories; the classification is the same as by the BROWN and LOB corpora. When sampling press articles and monographs, great care was taken to select books and equivalent topics to that of LOB and BROWN (http://129.177.24.54/icame/manuals.HTM).

The difference between the two projects is that while FLOB contains texts of British English, the FROWN corpus contains American English texts.

Table 6. The text classes of the FLOB and FROWN corpora

Text class	Size of texts	
	FLOB	*FROWN*
Press: Reportage	44	44
Press: Editorials	27	27
Press: Reviews	17	17
Religion	17	17
Skills, trades, hobbies	38	36
Popular lore	44	48
Belles-Lettres, Biography, Essays	77	75
Miscellaneous	30	30
Learned	80	80
General Fiction	29	29
Mystery	24	24
Sci-Fi	6	6
Adventures	29	29
Love stories	29	29
Humour	9	9

(source: http://129.177.24.54./icame/manuals)

4.3.2. The British National Corpus

The British National Corpus (BNC) is a large corpus with an amount of 100,000,000 words. It contains both written and spoken British English texts from the later part of the 20th century. The written part of the corpus (90%) contains a wide range of texts, from newspaper articles and periodicals for all ages and interests, to academic books and popular fiction, letters, memoranda,

etc. The spoken part (10%) contains a large amount of recorded conversation from different ages, regions, and social classes together with other collected texts (radio shows, meetings, etc.). The dialogues and monologues in the corpus have been spontaneously recorded from individuals living in different parts of Great Britain (Meyer 2002. 34). They are interspersed among the various genres that are found in the corpus (e.g. business, leisure, educational, etc.).

Table 7. Text classes of the BNC

Speech Type	Number of texts	% of spoken corpus
Demographically sampled	153	41%
Educational	144	12%
Business	136	13%
Institutional	241	13%
Leisure	187	14%
Unclassified	54	7%
Total	*915*	*100%*

Writing Type	Number of texts	% of written corpus
Imaginative	625	22%
Natural Science	144	4%
Applied Science	364	8%
Social Science	510	15%
World affairs	453	18%
Commerce	284	8%
Arts	259	8%
Belief & Thought	146	3%
Leisure	374	11%
Unclassified	50	2%
Total	*3,209*	*99%*

Source: Meyer (2002. 31)

4.3.3. The Web as corpus

Besides the corpora mentioned above, the Internet has also been used for the search and analysis of aspectual verbs and their complementation forms. The web as corpus has been considered an additional resource to the evidence (data) found in the other corpora. The necessity to use the web as corpus lies in the huge amount of data that give additional information on the aspectual verbs and the context they appear in, shedding new light on the phenomena involved (in July 1999, there were 56 million registered network addresses, in January

2001, there were 125 million addresses, and in 2003 172 million addresses) (Kilgarriff and Grefenstette. 5).

The use of the Web as corpus has its own advantages and disadvantages. As compared to other corpora (Brown Corpus, BNC, etc.), the Web as corpus has the disadvantage that it is not a representative and totally reliable source of information. Different from the corpora mentioned so far, which are balanced corpora from known sources, the Web is not balanced and the sources of the texts are not always verifiable. There are many blank pages on the web, not to mention the errors that may occur. Regarding commercial crawlers, they cannot access all web pages because some pages are 'invisible' and have an inbuilt local bias.

In spite of this, the Web has the advantage that it is free, instantly available, and it contains a huge amount of data. The web is constantly growing; its immense size can be considered an advantage when compared to other corpora. Although the BNC is large enough, enabling the quantitative analysis of linguistic phenomena, for some purposes it is not large enough: rare words or rare meanings of common words can hardly be found. The 100 million running words of the BNC is a considerable number, yet the bulk of the lexical stock appears less than 50 times in it, which is not enough to make statistically stable conclusions about a word (Kilgarriff 2003). Another advantage of the Web as corpus is that there are many materials which are not protected by copyright (Spoor 1996).

The data from the Internet have been obtained with a concordance program called Webcorp. This concordance program was started in 1998; out of the five search engines the program runs with, the data *analyse*d have been mostly obtained through Altavista. Although the difficulties relating to web search and the nature of commercial search engines remain (the presence of duplicates, blank pages, etc.) – so, the data obtained cannot be considered totally reliable –, Webcorp data can be considered an important, additional source of information to the one obtained from other corpora.

CHAPTER 5.

BEGIN, *START,* AND THEIR COMPLEMENTATION

This chapter presents an analysis of the verbs *begin* and *start* and their non-finite complement constructions. It focuses on the semantic meaning and function that can be attributed to the aspectual constructions *begin + to infinitive*, *begin + ing*, *start + to infinitive*, and *start + ing*.

The approach adopted here follows the outlines of construction grammar to a great extent. The meaning expressed by *begin* and *start* and their complements (*to infinitive* and *-ing*) is understood as resulting at the level of the aspectual construction as a whole. The aspectual verbs are not considered to determine the semantic meaning of an aspectual construction in its entirety, but the meaning of aspectual complementation results from the integration of the semantic meaning and function of the aspectual verb into the semantic meaning of the aspectual construction as a whole.

The aspectual constructions *begin + to infinitive*, *begin + ing*, *start + to infinitive*, *start + ing* are taken to have a meaning of their own, which is only partly determined by the meaning of *begin* and *start*. Although *begin* and *start* motivate the meaning of the entire aspectual construction to a high degree, the meaning of the aspectual construction as a whole is more complex than the meaning specified in the semantic frame of these verbs.

The subtlety of *begin* and *start* and their complementation lies in the fact that both verbs appear with the *to infinitive* and *-ing* complement constructions with apparently no difference in meaning (1–2). *Begin* and *start* and their complement forms are often interchangeable, which made several linguists conclude that there is little or no difference between the two aspectual verbs and their complement forms (*to infinitive* and *-ing*) – e.g. Hornby (Wolf 1977) states that no general rule can be given to explain the choice between *to infinitive* and *-ing* complementation after the aspectual verbs.

The analysis adopted here is based on the idea that a difference in form leads to a difference in meaning. *Begin* and *start* and the aspectual construction in which they appear (*begin + to infinitive*, *begin + ing*, *start + to infinitive*, *start + ing*) will be considered to convey different shades of meaning.

(1) It began to rain / raining. It started to snow. / It started snowing.
(2) I began to write/ writing a letter. / I started to write/ writing a letter.

Besides explaining the possible similarities and differences in the semantic meanings of these constructions, an important aim of the paper is also to explain the different frequency of these aspectual verbs with the *to infinitive* and *-ing* complements. It will be assumed that the difference between the aspectual constructions in this respect is partly motivated by their semantic value.

My findings from corpora (BNC) point to a more frequent complementation of *begin* with *to infinitives* and a more reduced occurrence with *-ing* complements. By contrast, *start* is more often followed by *-ing* complementation than by *to infinitives* (*begin to* – 2,628 entries, *beginning to* – 3,776 entries, *begins to* – 973, *began to* – 10,590 entries, *begun to* – 1,693 entries with *-ing* complements: *begin + ing* – 305 entries, *begins + ing* – 59, *began + ing* – 1,073 entries; *start to* – 1,979 entries, *starts to* – 586 *started to* – 3,433 entries, *starting to* – 970 entries, with *-ing* complements: *start + ing* – 2,307 entries, *starts + ing* – 324, *started + ing* – 2,117 entries.

This is in accordance with Bailey's findings (1993) (*begin to* – 254 matches (77%), *begin + ing* – 74 matches (23%), *start to* – 63 matches (29%), *start + ing* – 154 matches (71%) (Bailey 1993).[1]

The analysis of aspectual complementation cannot be considered complete without taking into consideration the eventuality type of the complement verb. As such, a special focus has been laid on the analysis of the event type of the complement verb, *analyse*d as part of the aspectual construction *begin + to infinitive*, *begin + ing*, *start + to infinitive*, *start + ing,* etc. The object of the research has been to see what difference there exists between the constructions in this respect, if there is a tendency for a certain aspectual verb to appear with an eventuality type (e.g. as will be shown, *begin* seems to appear more often with statives than *start* does) and how this can be explained.

In spite of the differences that might exist between them, *begin* and *start* appear with most of the eventuality types. They appear with activities and accomplishments and partly also with states (3–6). In limited cases, these verbs also appear with achievements (that do allow for a preparatory phase); in such cases, a plural NP is usually needed (so, the construction gets recategorized as an activity (Sentence 3)). The restricted use of these verbs with achievements can be explained by the fact that achievements are punctual in nature, and as a consequence they seldom appear with aspectual verbs.

(3) * John began to arrive. / The guests began to arrive. / * John started to arrive / The guests started to arrive.

(4)* I began to notice /* noticing him. / * I started to notice /* noticing him.

(5) I began to feel good /* to be feeling good. / I started to feel /* to be feeling good.

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1   Mair (2002. 116) draws attention to the fact that by analysing the frequency of a certain construction we are always dealing with an instant of a change in progress.

(6) She started / began hating him for his selfishness.

The semantic analysis of the constructions includes the analysis of the semantic value of the aspectual verbs, the semantics of the *-ing* and *to infinitive* constructions, the event type of the complement verb, and also the semantic role of the subject. A close interrelation will be expected between the different parts of a construction (the matrix, the complement construction, and also the subject of the sentence).

5.1. Values attributed to *begin* and *start*

Begin and *start*, while considered synonyms in many contexts, are also regarded as being semantically different. Although the studies on *begin* and *start* stress the similarities between the two verbs, they also state that there are some subtle differences between them. The difference between the two aspectual verbs is in many cases explained by the more complex semantic value of *start* as compared to *begin*. An important approach in this respect is offered by Freed (1979).

Freed defines *begin* and *start* in terms of 'presuppositions and consequences' understood from a pragmatic point of view (the term presupposition referring to the prior initiation of the event) and consequence (the subsequent occurrence of the event). In her theory, a great importance comes to the temporality of a situation, which can be defined in terms of onset, nucleus, and coda (the *onset* is a temporal segment prior to the nucleus of an event, that is, before the event (or the action) is actually initiated, the *nucleus* is the time segment during which the activity is in progress (without reference to its beginning or end); it can consist of subphases (initial, middle, and final segments). Finally, *coda* brings an event to its definite close.

Freed outlines the values of *begin* and *start* with respect to these notions; according to her, the difference between *begin* and *start* lies in the fact that *start* refers to the onset of an event, while *begin*, on the other hand, to the first temporal segment of the nucleus. This results in different consequence relations of these two verbs. Though they have similar presuppositions (they both presuppose the initiation of an event), *begin* and *start* have different consequence relations; while *begin* always entails a subsequent occurrence of the event, *start* may also entail non-occurrence (one can start something and then not do it). That is, while it is possible to say that an action started but got cancelled on the way (7b, 8), in the case of *begin*, it is presupposed that the action is fully developed in the onset. This makes the cancellation of the action impossible with *begin* (7a):

7a) ? She began to sneeze but then she didn't sneeze. / 7b) She started to sneeze but then she didn't sneeze.

8) Henry began to sneeze but quickly regained his composure after sneezing only once.   *(Freed 1979)*

Another difference between *begin* and *start* mentioned by Freed is the additional causality of *start*, which is missing from *begin*. Although *begin* is also causal in nature, leading to the initiation of the complement verb, *start* has an additional causality to that expressed by *begin*. This additional causality of *start* is shown by the sentence below (9) as well as its paraphrase. *Begin* does not allow for such structures (10).

(9) Joe started me thinking about the problem. / Joe got me started thinking / caused me to start thinking about the problem.

*(10) * He began me thinking about the problem.*   *(Freed 1979)*

Also, due to its additional causality, *start* can be used in contexts when it refers not only to the temporality of the sentence but to the initiating activity of the event as well. *Begin*, on the contrary, cannot be used in such contexts:

*(11) When are you going to start/ *begin the fire?*
(12) The flood started our trouble. / The flood began our trouble.*
                                                              (Freed 1979)

The fact that *start* refers to the onset, the very beginning of a situation, and *begin* to the first temporal phase of the nucleus, is pointed out by other linguists as well, such as Wierzbicka (1988) and Dixon (2005).[2] Wierzbicka notes that *start* refers to the first part and *begin* to the first moment of an event, which, in her opinion, is also shown by the fact that at races and similar events the initial moment is usually called *start* rather than *begin*. Also Hayakawa and Ehrlich (as cited by Duffley 2006. 98) claim that, as compared with *begin*, *start* places more emphasis on the mere beginning, on the act of setting out. *Start* is very often associated with movement and dynamicity. *Start* as a full verb can be used to express sudden movement (13–14) (*begin* does not have such a use). The fact that *start* is associated with abruptness and sudden movement has been noticed by several linguists – e.g. Wierzbicka contrasts *begin* with *start* by saying that while *begin* tends to express graduality, *start* is rather associated with abrupt, sudden movement.

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2   Duffley (2006. 99), on the other hand, contradicts Freed in this respect, saying that in fact *start* does not refer to any segment of an event, but it "evokes the notion of breaking out of a state of rest or inactivity or in its transitive use initiating an event by breaking out of a state or rest or inactivity."

(13) The sudden noise made her start.   (Oxford Learner's Dictionary)
(14) He started angrily to his feet.   (Websters Collegiate's Dictionary)

Similarly to Freed, Schmid (1993, 1996) also considers that *begin* refers to the initial phase, while *start*, on the contrary, to the first moment of the complement verb. According to him, there are other differences between the two verbs. Schmid (1993, 1996) observes a more frequent occurrence of *start* in dynamic, while that of *begin* in stative contexts. This, he states, is attributable to the dynamic character of *start* and the more stative character of *begin* (15–17). Newmeyer (1969) (as cited by Freed 1979) remarks that *start* shares syntactic properties with motion verbs such as 'dance', 'run', 'walk', 'jump', 'hop', etc.

(15) Now that we have begun to become familiar with these, we can also begin to discriminate in our judgment of Delius, Sibelius and Vaughan Williams.
(16) But now they started messing about with his children.
(17) Relieved, she started running in the opposite direction.
(Schmid 1993)

These approaches point to the fact that, although very close in meaning, *begin* and *start* are also different. *Start* seems to have a more specific use than *begin*, so there are many cases when *begin* is interchangeable with *start*, but the opposite is not always true. Start is causative and dynamic, also shown by the fact that start can be used in causative constructions, which are not possible with *begin*, and also that *start* can be used to refer not only to the temporality of a situation but also to the situation itself (e.g. he started the fire). Nevertheless, there are also cases when *begin* is preferred to *start*: consider for example the communicative use of *begin* used in storytelling, as illustrated in the sentence below:

(18) 'See her Sam', Nick began.   (Schmid 1993)

Another difference between the two verbs pointed out by Freed is that *start* refers to the onset and *begin* to the first part of the nucleus.

5.2. The non-finite complementation of *begin* and *start*

There are several studies which analyse the meaning of *begin* and *start* and their complement constructions. The *to infinitive* and *-ing* constructions after *begin* and *start* are mostly attributed temporal and moral values, being attributed opposite values, such as hypothetical meaning (*to infinitive*) vs. actuality (*-ing* construction) (Quirk et al. 1985), futurity (*to infinitive*) vs. present orientation (*-ing* construction) (Wierzbicka 1988, Dixon 2005), prior intention

(*to infinitive*) vs. intention in action (Verspoor 1990), etc. Finally, there are also approaches that define these complement constructions in non-temporal terms. Such an interpretation is that of Duffley's (2006), who attributes the *to infinitive* the value of a goal-circumstantial and the *-ing* a direct object function.

In this approach, the *to-infinite* and *-ing* constructions will be understood to have both an atemporal (schematic) and temporal (prototypical) value.

5.2.1. The schematic meaning of the *to infinitive* and *-ing* constructions

The schematic meaning of the complement constructions expresses their overall, more general function. Both the *to infinitive* and the *-ing* constructions are understood to be primarily non-temporal, tenseless constructions, so their schematic meaning will be defined in non-temporal terms, with respect to viewing.

The primary function of the *to infinitive* construction is to express a detached point of view, where the event expressed by the complement verb is viewed from the outside. This function of the *to infinitive* is understood to be motivated by the relational profile of the *to infinitive*, where the function of *to* is to express a movement towards the realization of the event expressed by the complement verb. The function of *to* as expressing a detached point of view is outlined by many linguists, e.g. Langacker (1991), Duffley (2006), and also Bailey (1993). They all *analyse* the meaning of the *to infinitive* as expressing a non-temporal relation, where the function of *to* is to impose a detached way of viewing of the infinitive.

Within the *begin + to infinitive* and *start + to infinitive* constructions, the *to infinitive* expresses an exterior viewpoint to the beginning phase of the complement verb. The *to infinitive* construction can express an exterior viewpoint with respect to a single occurrence or a series of occurrences (e.g. (19) implies one occurrence, (20) a series of occurrences):

> (19) I started / began to walk towards the door.   *(Freed 1979)*
> (20) The emptiness and silence began to get on his nerves. *(Rericha 1987)*

In contrast to the *to infinitive* construction, *-ing* expresses an interior viewpoint, where the event expressed by the complement is seen from within. *-ing* imposes a viewpoint on the complement verb, where the whole beginning phase is seen from the interior. As is the case with the *to infinitive* construction, the event expressed by the complement verb can express one occurrence (21) or a series of occurrences as in (22).

> (21) The engine started (or began) smoking.   *(Duffley 2006)*
> (22) I started making telephone calls.   *(Rericha 1987)*

5.2.2. The prototypical meaning of the *to infinitive* and *-ing* constructions

The prototypical meaning of the *to infinitive* and *-ing* is construction-specific and greatly depends on the semantic value of the verbs they follow (*begin* and *start*). When embedded into the *begin + to infinitive* and *start + to infinitive* constructions, these complement forms become temporalized.

Begin and *start* as temporal-modal operators give rise to the temporal space of the complement constructions; they indicate the starting point of the temporal phase expressed by the constructions. The situation expressed by the *to infinitive* and *-ing* clause develops from the situation expressed by the matrix; they can be considered a continuation of the temporality (RT of the main clause). Described in more formal terms, it can be said that T1 (the time expressed by the main clause) begins T2 (the time expressed by the complement construction) (Dinsmore 1991).

Freed (1979) defines the meaning of the *to infinitive* and *-ing* after *begin* and *start* in opposition. The main function of the *to infinitive* in aspectual complementation is to express a generic (or series) reading, while the *-ing* a single, durative occurrence (in (23), the use of the *to infinitive* is more appropriate since there are a series of events involved).[3]

As has already been pointed out, this is not necessarily true since the *to infinitive* can express a single occurrence as well (24); *-ing* can also refer to a repeated, habitual activity (25).

(23) I had hardly slept for two nights, but the excitement of the move plus my nervous energy kept me going. By the third day I began to feel/? feeling drugged and every time I sat down I started to fall asleep/ ? falling asleep.

(24) All of a sudden she started to run towards the car.   *(Freed 1979)*

(25) He started smoking when he was 13.   *(Duffley 2006)*

A difference between the *to infinitive* and *-ing* construction in this respect is not necessarily between a series or a generic vs. one durative occurrence but rather in terms of duration. While in the case of the *to infinitive* there is no expectation of duration, in the case of *-ing*, the event is expected to last. The duration expressed by the *-ing* construction is not considered to be a property of *-ing* alone, but rather it is a property of the entire aspectual construction and is activated after the complement construction becomes part of the aspectual construction as a whole.

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3   Freed (74) also observes that *-ing,* besides expressing a single occurrence, can also refer to a series of events; in this case, she contends that the event expressed by *-ing* refers to occurrences within one longer event.

The duration within the *-ing* construction after *begin* and *start* can be expressed by the repetition of short-term processes or habitual repetition over a limited period of time.

(26) *As soon as we sat down, three hoods leaned into our booth and began making vulgar cracks.*   (Rericha 1987)

The event expressed by the *-ing* construction after *begin* and *start* may even be understood to be fully developed in its initial phase. Thus, Sentence (27) implies that the initial phase of the reading has been fully carried out. This is not the case with the *to infinitive* complements that only imply that the initial phase of an activity has been started (Rericha 1987. 130).

(27) *I started reading a section called "Tests and Sperm" and was astonished to discover that (...).*   (Rericha 1987)

An important difference between the *to infinitive* and *-ing* construction after *begin* and *start* can be defined with respect to modality. Many linguists define *to infinitive* as expressing a potential event, while *-ing*, by contrast, an actual event (Cornilescu 2003). That this is so is also shown by the frequent occurrence of the *to infinitive* construction with statives, psychological verbs as complements (especially the *begin* + *to infinitive* construction) (28–29):

(28) *(…) But on one occasion when I encountered a similar fantasy in a little boy who was my patient I began to understand the uncanny effects of this story.*   (BROWN)
(29) *(…) Readers will begin to see the results this week in our coverage of the opening ceremonies.*   (FROWN)

Begin and *start* are forward-looking constructions; this means that after them the *to infinitive* also implies a sense of futurity in itself. There are several interpretations that attribute both a temporal and modal value to the *to infinitive* construction (Wierzbicka 1988, Verspoor 1990, etc.).

In contrast to the *to infinitive*, the *-ing* construction after aspectual verbs makes reference to a specific event or series of events that are locatable in space and time (Cornilescu. 471). The entity profiled by the *-ing* construction can be defined to be simultaneous with the time phrase expressed by the matrix verb; the moment referred to by the main verb can be presented as identical with the beginning of the stretch of time referred to by the complement (Wierzbicka 1988).

The actuality reading of *-ing* may explain why the event of the complement construction governed by the *-ing* construction cannot be cancelled in the

meantime (this is also the case with *start,* which, when followed by an *-ing* complement, does not allow the cancellation of the event either):

> *(30)* She began /* started sneezing but then she didn't sneeze.*
>
> *(Freed 1979)*

5.3. The eventuality type of the complement construction

In order to get a more comprehensive picture of the aspectual complementation of *begin* and *start*, the event type of their complement verbs must also be taken into account. The analysis has been done at the level of the aspectual constructions – *begin + to infinitive / start + to infinitive*, *begin + ing / start + ing.*

Concerning the appearance with event types, it can be said that *begin* and *start* appear with all situation types: activities, states, and events (less frequently with achievements).

The most frequent eventuality types within the *begin + to infinitive* and *start + to infinitive* constructions are activities (Schmid 1993). Both constructions appear frequently with activities that take an acting agent as their subject. As regards the other situation types, there seems to be some subtle differences between the two constructions.

Begin, more often than *start*, appears with state verbs (especially cognitive verbs like 'see', 'think', 'understand', 'realize', etc.) when it is followed by the *to infinitive* construction; when followed by the *-ing* construction, the number of states in the complement construction is much more reduced due to the fact that statives take *-ing* forms very restrictively. My findings from corpora (ICAME, BNC, Web as corpus) seem to conform to Schmid's observation that *begin* occurs frequently with cognitive verbs when followed by the *to infinitive* construction.

Besides state verbs, the *begin + to infinitive* construction also appears frequently with process verbs that lack an acting agent (Schmid. 244).[4] By contrast, the number of process verbs after *start* seems to be more reduced. *Table 8* offers data on the frequency of state verbs, process verbs (lacking an acting agent), as well as activity verbs after *begin* and *start*.

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4   Agents can be both animate and inanimate subjects, although many linguists consider agents only those subjects that are animate. Among the indicators of agentivity are: volition, control over involvement in an event or state, the subject is a wilful initiator or instigator of an event, or, in the case of inanimate subjects, it is a source of force directed at or against another entity, or it is an entity which moves, coming into contact with another event which is stationary, etc. (Kearns 2000. 244).

Table 8. The frequency of event types within *begin + to infinitive* and *start + toinfinitive* as understood by Schmid (1993. 228)

Eventuality Type	TOTAL	%	Start	%	Begin	%
Action	265	59.0	113	87.6	152	47.4
Cognition	99	22.0	3	2.3	96	30.0
Process	63	14.1	10	7.7	53	16.6
State	22	4.9	3	2.3	19	6.0
TOTAL	449	100	129	100	320	100

As it will be shown later on, the eventuality type of the complement verb is also closely connected to the semantic value of the *to infinitive* and *-ing* constructions, which then show some differences in the eventuality type of their complement verb.

Table 9. State, process, cognitive, and action verbs within *begin + to infinitive* and *start + to infinitive.* Findings from ICAME corpus collection
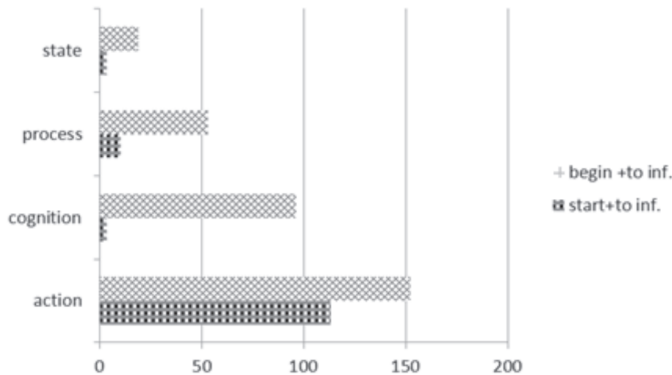
The *to infinitive* construction after *begin* and *start* shows a greater variety of eventuality types (containing state verbs, activities, and process verbs as well) than the *-ing* construction. The *-ing* construction often contains durative, activity verbs that in most cases require an active, agentive subject. Both *begin + ing* and *start + ing* constructions take activity verbs to a high degree.

5.3.1. *Begin + to infinitive* and *start + to infinitive* with activities

The greatest frequency of both *begin* and *start* is with activities, where the subject is an acting agent (Schmid 1993). Four activity verbs have been *analyse*d in greater detail after *begin* and *start*: they are 'do', 'run', 'walk', and 'study': all

these verbs require a human agent as their subject. Statistical data have been obtained from the BNC and the Web. Although the findings show a frequent occurrence of all four verbs with *begin* and *start*, in some cases, the number of activities after *start* seems to be higher than after *begin*. This, according to Schmid, can also be explained by the agentive-dynamic character of *start* (Schmid. 237).[5]

Table 10. The frequency of activity verbs within *begin + to infinitive* and *start + to infinitive* (findings from the BNC and the WEB)

	DO		*RUN*		*WALK*		*STUDY*	
Source	BNC	WEB	BNC	WEB	BNC	WEB	BNC	WEB
Begin to	7	203	10	257	10	178	2	148
Begins to	1	157	9	322	3	215	0	145
Began to	17	207	39	220	136	240	36	198
Begunto	12	161	5	152	5	183	7	159
Beginning to	9	169	10	157	3	248	1	147
Start to	20	213	12	225	8	200	2	158
Starts to	1	162	6	234	2	237	0	149
Started to	33	200	48	277	68	244	2	198
Starting to	10	210	6	180	7	167	0	139

5.3.2. *Begin + to infinitive* and *start + to infinitive* with states

My findings from corpora (Brown Corpus, LOB, FLOB, BNC, as well as data from the web) confirm Schmid's as well as Cornilescu's (p. 471) observation that *begin* occurs frequently with cognitive verbs as well as with verbs of state and psychological verbs like 'understand', 'miss', 'believe', etc. when it is followed by the *to infinitive* construction.

While *start* can also be followed by a state verb (Sentence 31), the number of cognitive and psychological verbs within the *start + to infinitive* constructions is more reduced, as the data show.[6] The complement verb in the *start + to*

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5   Schmid (1993) sees the difference between the eventuality types of *begin* and *start* as motivated by the different semantic values of the two verbs. While *begin* can be characterized as being stative in nature, often describing the initiation of a state of mind (the frequent occurrence of *begin* with cognitive verbs), *start*, which is more dynamic, more often appears in a dynamic context, with an acting agent.

6   Schmid points to a more frequent occurrence of *begin* with state verbs, especially verbs of cognition (following Quirk's (1985) classification of cognitive verbs, these are: 'intellectual states,' 'states of emotion or attitude,' 'states of perception,' 'states of bodily sensation') but also other state verbs (Schmid: 242). From a total of 99 findings of cognitive verbs following *begin* and *start*, 96 appear in the *begin + to infinitive* construction; the number of cognitive verbs in *the start + to infinitive* construction is only 3. Schmid considers that this is motivated by the semantic value of *begin*, which can be characterized as being stative in character (Schmid. 241).

infinitive construction is more often an activity carried out by an acting agent; state verbs rarely appear within the *start + to infinitive* construction.

(31) She started to be interested in music late in his life. (Cornilescu 2003)

Table 11 shows the occurrence of four cognitive verbs, 'see', 'realize', 'think', and 'understand' within the *begin + to infinitive* and *start + to infinitive* constructions. Data have been obtained from the Brown, FLOB, LOB, FROWN corpora (ICAME project) as well as BNC and the Web.

The data show a more frequent occurrence of state verbs within the *begin + to infinitive* construction than within the *start + to* infinitive construction. This is partly due to the semantics of the two verbs (*begin* prefers the appearance of cognitive verbs because of its gradual character, unlike *start*, which is more related to action and dynamicity) and their interrelation with the *to infinitive* (refers to the potential coming into being of the occurrence) and *-ing* constructions (focuses on the occurrence itself).

Table 11. The frequency of cognitive verbs within *begin + to infinitive* and *start + to infinitive* (findings from the BNC and the Web)

	SEE		*REALIZE*		*THINK*		*UNDERSTAND*	
Source	BNC	WEB	BNC	WEB	BNC	WEB	BNC	WEB
Begin to	97	317	16	239	49	219	92	186
Begins to	4	209	3	293	9	231	2	184
Began to	117	310	44	208	145	358	45	224
Begun to	14	147	4	227	20	228	9	181
Beginning to	85	122	25	180	152	225	39	220
Start to	18	275	1	255	31	170	6	223
Starts to	1	152	0	165	3	178	0	164
Started to	8	239	1	218	30	252	1	167
Starting to	6	199	6	168	15	363	0	157

When *begin* is followed by a stative verb, the subject is often a patient (32–35). In Sentence (35), with *start*, the graduality of the *begin + to infinitive* construction is missing; rather, the turning point that would mark a change in the fat man's behaviour is understood as being abrupt. This sentence implies a human agent who, after observing how the things stand around him, starts acting in a certain way.

Table 12. The frequency of the verb 'see' within *begin + to infinitive* and *start + to infinitive* (findings from BNC)
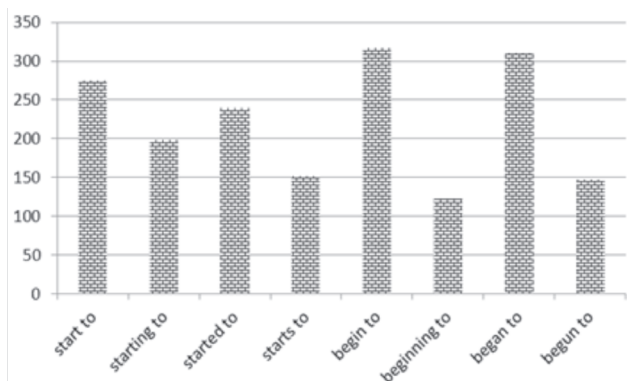
(32) You want to see him again – just one more time, you tell yourself – and you begin to feel the overwhelming need to confess. (FROWN)

(33) It's a big stretch from that to MacDonald's conclusion: "One can begin to see why a woman fighter should be more feared than a man: she views her cause as a surrogate child. (FROWN)

(34) Keys's findings, though far from complete, are likely to smash many an eating cliché. Vitamins, eggs and milk begin to look like foods to hold down on (though mothers' milk is still the ticket). (BROWN)

(35) Puritan New England regarded obesity as a flagrant symbol of intemperance, and thus a sin. Says Keys: "Maybe if the idea got around again that obesity is immoral, the fat man would start to think". Morals aside, the fat man has plenty to worry about – over and above the fact that no one any longer loves him. (BROWN)

5.3.3. *Begin + to infinitive* and *start + to infinitive* with telic events and processes

Begin + to infinitive and *start + to infinitive* constructions often appear with accomplishments, so that it is possible to say *He began/started to deliver the sermon/paint a picture/walk to school.* The appearance of these constructions with other telic verb phrases, like achievements is restricted, due to the instantaneous nature of these verbs (consider the ungrammaticality of the phrases *He started/*began to reach the top/*find his wallet).* Nevertheless, these constructions can appear with achievements that have a preliminary

phase, so that the phrase *She began/started to realize who he was* may be acceptable in case the event is a gradual rather than an instantaneous one.

An important aim of the analysis has been to see which of the constructions (*begin + to infinitive* and *start + to infinitive*) also favour process verbs that lack a human acting agent. Such verbs (e.g. *take shape*, improve, etc.) seem to be more frequent within the *begin + to infinitive* than within the *start + to infinitive* construction. My findings confirm Schmid's observations; he points to a more increased occurrence of *begin* with process verbs as compared to *start* (Schmid. 245).

Three process verbs, 'improve', 'take shape', and 'happen' have been *analyse*d within the BNC and also the Web, and the findings show a slightly more increased number of these verbs after *begin* than after *start*. That these verbs take non-agentive subjects is shown by sentences (36–37). These sentences, besides being non-agentive, also express a gradual coming into being of the occurrence expressed by the complement verb. The meaning of the construction results from the interaction between *begin* (expressing graduality) and the *to infinitive* construction (referring to a potential future event).

(36) In middle age there are enough things that have to be done with some ulterior motive; it is folly to take up voluntarily anything that may become a taskmaster. Home carpentry, as we have seen in the first of this series of papers, may begin to show itself …   *(LOB)*

(37) Given good weather, the coming summer* – when the Australians are the visitors* – should be a fair one for the first-class game. But 1962 may well be critical for by then the new look to be given to the game by the committee charged with that task should begin to take shape. And who comes here in 1962?   *(LOB)*

Table 13. The frequency of process verbs ('improve', 'take shape', and 'happen') after *begin* and *start*. (ICAME Corpus Collection)

| | *IMPROVE* | | *TAKE SHAPE* | | *HAPPEN* | |
	BNC	WEB	WEB	BNC	WEB	BNC
Begin to	8	197	148	0	188	8
Begins to	4	150	116	1	163	2
Began to	17	156	183	29	170	14
Begun to	4	134	164	1	156	1
Beginning to	2	139	152	9	165	21
Start to	7	164	132	1	280	6
Starts to	2	161	139	1	187	1
Started to	5	192	185	3	212	9
Starting to	2	153	231	3	261	5

5.3.4. *Begin + ing* and *start + ing* with eventuality types

Begin + ing constructions are much more reduced in number than *start + ing* constructions. The more frequent occurrence of *start + ing* constructions can be explained by the interrelation between the semantic value of *start* (its dynamic, abrupt character) and the semantic value of the complement construction (*-ing* focuses on the occurrence expressed by the complement verb, which within this construction gets a durative character). Both constructions appear most frequently with activity verbs. The number of activity verbs which require an animate, agentive subject seems to be high both within *begin + ing* and *start + ing* constructions.

The data from ICAME (Brown Corpus, FLOB, FROWN, LOB) show a high frequency of *-ing* constructions with agentive subjects. The construction *begin + ing* has turned up 305 matches: the complement verbs are mostly activities that require an active agent: e.g. 'shipping', 'making', 'moving', 'thinking', 'reading', etc. The construction *begins + ing* with 59 matches also favours 'shipping', 'listening', 'counting', 'teaching', and 'working'. The number of activity verbs is also high within the past constructions *began + ing* and *begun + ing*; *began + ing*, with 1,073 matches, contains verbs like 'working', 'talking', 'writing', 'making', 'walking', etc.; *begun + ing*, with 195 entries, has as complement verbs such as 'working', 'using', 'making', etc.

Start + ing yielded 2,307 matches; the complement verbs are very often activity verbs, like 'talking', 'thinking', 'working', 'getting'; also, with the construction *starts + ing*, there are many activities as complement verbs: the findings (324 entries) contain activity verbs like 'coming', 'making', 'talking', 'playing', etc. Similar is the case with the construction *started + ing*: among the entries (2,117 matches), the number of activity verbs is high (with such verbs as 'going', 'talking', 'working', 'taking', etc.).

The data point to a possible relation between agentivity and the presence of *-ing* complements. It seems that when there is an active agent in the aspectual construction, very often *-ing* is preferred instead of the *to infinitive*. The idea is not totally new: Egan (2003) in his study on *begin* and *start* draws attention to a possible relation between animacy, agentivity, and the *-ing* complement construction. According to him, the presence of *-ing* is closely connected to agentivity (and also animacy), so that Egan observes a higher number of animate and agentive subjects in the case of *-ing* complement constructions than with *to infinitives*. In contrast to *-ing* complements, *to infinitive* constructions appear more frequently when the subject of *begin* and *start* is inanimate and non-agentive.

Egan illustrates his point by a series of statistical data on the nature of subjects within the *begin + ing* and *start + ing* constructions (his findings are from the LOB corpus) (tables 14 and 15):

Table 14. Person and animacy of subjects of *begin* and *start* when followed by *to-infinitve* and *-ing* (based on Egan 2003. 205)

	1st person	*2nd person*	*3rd person*		*Total*
			Animate	*Inanimate*	
Begin *to*	12.1%	1.3%	53.5%	33.0%	452
Begin + *ing*	4.1 %	2.7%	81.1%	12.1%	74
Start *to*	9.1%	8.4%	53.2%	29.2%	154
Start + *ing*	22.6%	11.1%	57.9%	8.4%	190

Table 15. Agentive and non-agentive animate subjects of *begin* and *start* (source: Egan 2003. 206)

	Agentive	*Non-agentive*	*Total*
Begin *to*	67.7%	32.3%	303
Begin + *ing*	100%	0	65
Start *to*	86.2%	13.8%	109
Start + *ing*	95.4%	4.6%	174

Table 16. Agentivity and animacy within *start + ing*, *start + to infinitive*, *begin + ing*, *begin + to infinitive* (source: ICAME Corpus Collection)
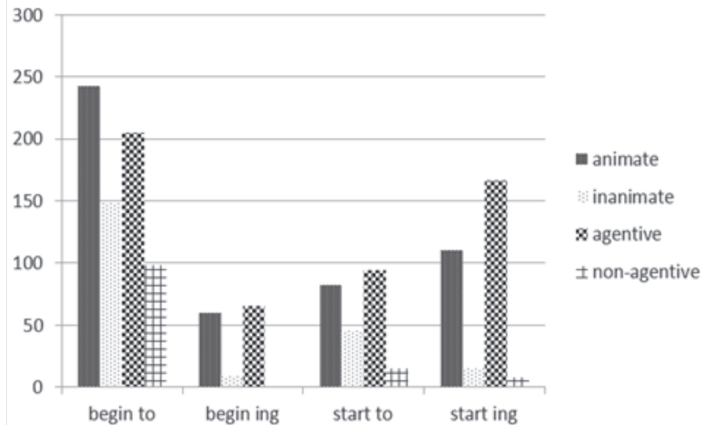
Indeed, the number of activities with an active agent seems to be high both within the *begin + ing* and *start + ing* constructions. Examples of this are sentences (38–39) (in these sentences, both the industries (38) and the Metropolitan (39) can be understood as acting agents) and also sentences (40–41) (where Italy is referring to the people representing the country (40) and also my mind is seen as part of an acting agent (41), and as such they all have agentive roles).

(38) Not just companies, but whole industries will begin moving south of the border to the land of low-cost labor and high profits.   (FROWN)

(39) Anticipating rigid new drinking water quality standards under the Safe Drinking Water Act, Metropolitan began testing a new treatment process at its Oxidation Demonstration Project on the grounds of the F.E.   (FROWN)

(40) But after the 'no change' shock from Legal and General it would be as well not to expect much. ITALY is actively looking for British firms wishing to start manufacturing within the Common Market.   (LOB)

(41) My mind started racing. This was like a dream come true and a nightmare all in one.   (FROWN)

The number of state verbs within the *begin + ing* and *start + ing* constructions is reduced; states, owing to their unbound nature, do not really appear in *-ing* constructions. The number of process verbs that do not take a human agent seem to be also reduced within the *begin + ing* and *start + ing* constructions as well; this is because when embedded into the *begin + ing* and *start + ing* constructions the subject very often receives an agentive interpretation.

CONTINUE AND ITS COMPLEMENTATION

As is the case with *begin* and *start, continue* also allows for both the *to infinitive* and *-ing* complement constructions. Although *continue + to infinitive* and *continue + ing* share many similarities (both constructions refer to the nucleus of an occurrence, expressing a continuous, ongoing activity) there are also some subtle differences between them. The two constructions tend to show some slight differences which are highly motivated semantically by the interrelation that exists between the semantic value of the matrix verb *continue*, the semantics of the complement constructions *to infinitive* and *-ing*, the situation type of the complement verb, as well as the semantic role of the subject.

6.1. The semantic value of *continue*

Dowty (1979) classifies *continue* as an activity verb, similarly to Freed (1979) and also Brinton (1988), who define *continue* as referring to the nucleus of a situation (Freed), respectively as expressing the continuation of the nucleus of the situation (Brinton).

In his study on aspectual verbs, Engerer (2007) attributes a special status to continuative aspectualizers. According to him, continuative aspectualizers share three important characteristics: firstly, their eventuality type (Egan classifies egressive and ingressive aspectual verbs as achievements, continuative aspectualizers as activities); because continuative aspectual verbs behave as activities, they evaluate the same positive proposition both before and after t, the time expressed by the construction. Secondly, constructions with *continue* always make some implicit reference to some point after the initiation of a situation or a series of situations; as the event expressed by the construction is expected to last, it can be said that *continue* implies both a backward and a forward looking on the respective situation (Egan 2003).

Finally, only continuative aspectual verbs imply a sense of ambiguity in their meaning; continuative aspectual constructions can be ambiguous between a continuative reading and an interruptive reading. Thus, sentence (1) can lead to both a continuative meaning (3) and an interruptive meaning (2):

(1) John continued to write.
(2) …when he found his favourite pen.
(3) …although he couldn't almost hold the pen.   *(Engerer 2007)*

Bailey (1993) defines the meaning of *continue* as 'to remain or proceed unchanged'. That this is the basic meaning of *continue* is confirmed by most linguists, e.g. Wierzbicka (1988), Freed (1979), Brinton (1988), etc.

Besides the basic meaning of *continue*, there are also other additional meanings of *continue* (often defined in comparison with other continuative aspectual verbs like *keep* or *resume*). Wierzbicka, for example, differentiates between aspectual verbs that imply an arbitrary external intervention (e.g. *quit, resume*) and those that rather suggest a natural outcome, determined by the logic of the action or the process itself. Wierzbicka includes *continue*, which in her view expresses predictability (unlike, for example, *keep*, which expresses unpredictable repetition) in this latter group.

Freed interprets the meaning of *continue* with respect to *keep*: according to her, the difference between them lies in different presupposition and consequence relations implied by the two verbs. While *continue* always implies as presupposition that the event in question has taken place before, this is a consequence and not a presupposition for *keep*. In fact, in case *keep* operates on series, there is often neither a presupposition nor a consequence about the prior occurrence of the event. In the examples below, only Sentence (5) presupposes that the slamming of the door has taken place before.

(4) Someone kept slamming the door all night.
(5) Someone continued slamming the door all night.   *(Freed 1979)*

Other differences brought up in the literature about *continue* (*continue* referring to both iterative and continuous activities (Freed 1979, Brinton 1988), also the differentiation between *continue* as a state verb and *continue* as an activity verb (Tregidgo 1980)) are closely connected to its complementation with the *to infinitive* and *-ing* complement constructions as well as the aktionsart category of the complement verb.

Explaining the non-finite complementation of *continue* is not an easy endeavour since *continue* and its complement forms are interchangeable in many cases, with seemingly no or little difference in meaning. With all this taken into account, there seem to be some slight differences between the *continue +* *to infinitive* and *continue + ing* constructions. After presenting some of the main values attributed to *continue* and the complement forms *to infinitive* and *-ing*, an attempt will be made for a possible semantic interpretation of *continue* and its complement forms.

6.2. Complementation of *continue*

6.2.1. The value of *continue* + *to infinitive* and *continue* + *ing*

Freed defines the difference between *continue* + *to infinitive* and *continue* + *ing* as between a generic or a serial reading (*to infinitive*) and a durative reading of a single event (*ing*). She considers that although both of these forms could be acceptable, when the context suggests a single, ongoing event, the *-ing* form is preferable; when, however, the sentence contains a repeated occurrence of the events, the *to infinitive* is the more natural form of the two (Sentence 6). While *continue* + *to infinitive* often implies an interruption of the event in question, this is blocked in the case of *continue* + *ing*, since *-ing* lends a durative aspect to the event it is attached to. In the case of *-ing*, an interruption is at most potential (Sentence 7) (Freed. 94).

(6) *While the man held a gun on her, she continued counting/? to count out hundred-dollar bills.*

(7) *The band began playing at 9.00. They continued to play/? playing until 1 a.m. stopping for a 5-minute break every half hour.*   (Freed 1979)

Duffley (2006) states that the distinction made by Freed between generic (*to infinitive*) and durative reading (*-ing*) cannot always be accepted. He notes that a sense of interruption may be implied both by the *continue* + *to infinitive* and *continue* + *ing* constructions (8–9):

(8) *When he finally got the coughing under control, he realized that Pete (all he gave was his first name) was still waiting for an answer – he didn't even wink as he continued to stare.*   (BROWN) (Duffley 2006)

(9) *Last week on a bus I saw a young mother spank her little boy when he used the F-word. "Good for her", I thought. She then continued talking to her friend with a conversation which was peppered with exactly the same word.*
(BNC) (Duffley 2006)

In Duffley's interpretation, the *-ing* construction after *continue* has the function of a direct object, expressing 'that which is continued'. Unlike the *-ing* construction, the *to infinitive* after *continue* is defined to have the function of a goal-circumstantial: it expresses the notion of movement towards the total realization of the event (Duffley. 111).

Brinton (1991), Freed (1979), and also Egan (2003) note that *continue* can encode both continuative and iterative situations. Brinton notes that the function of continuative aspectual verbs is similar to the progressive 'be', so that

both of them emphasize the continuity of a situation; a considerable difference between the two constructions is that unlike 'be', *continue* is not always related to the dynamicity of a situation. This may explain why *continue* also appears in contexts where the progressive 'be' is unlikely to be present. Thus, in Example (10), while the appearance of the state verb 'exist' is perfectly acceptable after *continue*, it would not be appropriate in the progressive construction' since in this case 'exist' cannot receive a dynamic interpretation.

(10) Although the theological forms of the past continue to exist /* is existing in a way they do not in a more secularized situation, the striking thing is the rapidity with which they are being reduced to a marginal existence.

(BNC)

Whether the meaning of *continue* is continuative or iterative depends on the eventuality type of the complement verb. When *continue* is followed by states, accomplishments, and continuous activities (11–12), its meaning is continuative; when, by contrast, it is followed by series (13–14), its meaning is 'iterative' (Brinton 1991. 87).

(11) She continues to own a large car.
(12) He continued to walk / walking.
(13) Tree limbs continued to break / breaking.
(14) Bill continued to gamble / ?gambling for years.   *(Brinton 1991)*

As stated by Brinton (1991), the difference between the *to infinitive* and *-ing* constructions after *continue* can be defined in aspectual terms, as between perfective reading (*to infinitive*) and imperfective reading (*-ing*). She states that this distinction may not always be consistently maintained, but it is mostly characteristic in the case of states and habits.[1]

Egan (2003) considers that the *to infinitive* construction has a different meaning when it follows *continue* than after *begin* and *start*. He contends that the path–goal schema instantiated by *to* does not have a future value after *continue* as it does after *begin* and *start*, since in the case of *continue + to infinitive* the situation expressed is always realized. Egan (p. 217) considers that *to* after *continue* points to one of two alternative situations, one of them being to continue the situation, the other to cease to realize the situation in question. The *-ing* construction, by contrast, does not have a modal meaning;

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1   Brinton explains the more frequent occurrence of states and habits with *to infinitives* by the fact that both states and habits are viewed perfectively in English (Brinton 1991. 93). This does not mean that the *-ing* construction is not possible with states or habits: yet in such cases – very often – a shift occurs: states very often receive an 'activity' reading of dynamicity when they appear in the *-ing* construction; in the case of habits, the shift is from a habitual, serial reading to a non-serial, single event reading.

rather *continue + ing* seems to express a continuative and iterative situation which happens on one single occasion.

Tregidgo (1980) also offers an interesting explanation for the complementation of *continue*. In his view, *continue* can be both an activity verb and a state verb; that is, it can express both an activity meaning ('resume', 'not stop') and a state meaning ('to remain unchanged'). Tregidgo gives examples of cases where *-ing* but not the *to infinitive* seems likely after *continue* (sentences 15–16). The reason for this is that in these cases *continue* means 'resume'; this is also the case in the sentences below:

(15) *Stop now, and continue writing your report at two o'clock.*
(16) *He paused to blow his nose, and then continued speaking.*
<div align="right">*(Tregidgo 1980)*</div>

There are also cases where instead of the *-ing* form the *to infinitive* form is more likely, as in sentences (17–18). Here, *continue* means neither 'resume' nor 'not stop', but rather the meaning of *continue* here is to 'proceed unchanged', to 'remain unchanged', so that in this case *continue* is a verb of state (and can be paraphrased as: *John's visits continue* and also *The fall in the value of the dollar continues*). This also implies that in cases when *continue* means 'not stop' both the *to infinitive* and *-ing* constructions are possible, with little difference in meaning (consider sentences 19–20):

(17) *John continues to visit Mary.*
(18) *The value of the dollar continues to fall.*
(19) *During the strike, the office staff continued to work/working.*
(20) *When I turn off the ignition, the engine continues to fire/firing.*
<div align="right">*(Tregidgo 1980)*</div>

6.3. The schematic meaning of *continue + to infinitive* and *continue + ing*

Just as in the case of *begin* and *start,* the schematic meaning of the *continue + to infinitive* and *continue + ing* constructions is determined by the profile of the complement constructions (path–goal schema and container schema of the constructions).

Unlike *begin + to infinitive* and *start + to infinitive*, which express a perfective viewpoint (external point of view) on the initiation of the event, the *continue + to infinitive* construction expresses a perfective viewpoint on the further realization of the event, referring to the nucleus of the event. Although

this construction often implies the interruption of an action (as is the case in Sentence (21)), there are also cases when an interruption of the event is not implied (e.g. Sentence (22) describes one ongoing action):

(21) For the whole structure of the craft is founded on inherited skills. We who love lace-craft hope that you will enjoy the work that this book offers in such variety* – but at the same time, may we plea that you will also guide other hands to pick up the threads? Only with the knowledge handed down by mother to daughter, by teacher to pupil, can this fascinating and deeply satisfying craft continue to give its rewards to younger generations. *(LOB)*

(22) But when large amounts of water have been inhaled it is most unlikely that recovery will occur, although the heart may continue to beat ineffectually for several minutes after rescue. *(LOB)*

When an interruption is implied, *continue + to infinitive* often expresses the repetition of the entire occurrence expressed by the complement. This is also the case in sentences (23–24); while in (23) the repetition is understood to happen at one occurrence, in (24), the action is seen to take place at various times. In both cases, the actions expressed by the complement construction are part of one large occurrence.

(23) As they passed the well-house, someone was drawing water, and Anne placed Helen's hand into the stream pouring from the spout of the pump, and spelt into her other hand the word water, water, water. Anne continued to do this, at first slowly and then rapidly, until it suddenly dawned on Helen's mind that water meant the cool something flowing over her hand. "That living word awakened my soul," said Helen many years after. *(LOB)*

(24) Eggs were cheaper than in the previous year and consumption increased in nearly all groups despite fewer free supplies. All types of household substituted margarine for butter in 1959 because of higher butter prices, but all except the largest families continued to buy more butter than margarine.

(LOB)

Unlike *continue + to infinitive* construction, *continue + ing* expresses an imperfective, internal view of the event in question. In the case of *continue + ing*, the nucleus of the event expressed by the complement verb is viewed from within; the phase of the nucleus that is put into focus is representative of the entire construction.

The *continue + ing* construction usually expresses an internal view of the nucleus of an uninterrupted occurrence, taking place on one single occasion,

yet in certain cases this construction also expresses an internal view of an interrupted event (Sentence 25). More rarely than *continue + to infinitive*, this construction also gives an internal view of occurrences taking place at different times (Sentence 26).

(25) Let us continue thinking outside the box, while bringing black & white values with us every step of the way. If we are able to remain open-minded enough to adapt to situations that block our path, yet remain strong enough in ourselves to not get lost along the way, we will be able to finish first when it truly matters. *(Webcorp/ http://www.facebook.com)*

(26) We continue taking the French ships, but they take none of ours.

(Egan 2003)

6.4. The prototypical meaning of *continue + to infinitive* and *continue + ing*

The prototypical meaning of the *to infinitive* and *-ing* constructions is motivated, on the one hand, by their profile (path–goal schema of the *to infinitive*, container schema of the *-ing*), on the other hand, by the semantic value of *continue* and the interaction that results between *continue* and the complement construction.

Concerning the *continue + to infinitive* construction, the *to infinitive* within the construction is assumed to express a future value. The temporal space expressed by the complement construction can be considered to be future with respect to the temporal space of *continue* (the right boundary of the *to infinitive* is considered to exceed the right boundary of *continue*).[2] This construction is considered to express the further realization of the nucleus, after a possible interruption. The modal, hypothetical meaning of the *to infinitive* is not as strong as in the case of inceptive aspectual verbs, e.g. *start + to infinitive*, since in the case of *continue + to infinitive* the event expressed by the complement verb is always carried out.

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2   The RT of the matrix verb *continue* gives rise to the temporal space of the *to infinitive* construction. As *continue* refers to the nucleus of the complement, it does not establish any external boundary of the construction as it is the case with inceptive or egressive aspectualizers, but it already indicates a segment of its internal part. In spite of this, the *to infinitive* is understood to acquire a sense of futurity within the construction: *to* expresses an orientation which is future to the RT established by the main clause. Just like in the case of ingressive aspectualizers, the sense of futurity expressed by the construction is greatly motivated by the path–goal schema of the *to infinitive*: the function of the particle *to* within the construction is to express an orientation towards the occurrence or final realization of the event named by the verb it governs.

By contrast, the *continue + ing* construction lends an ongoing, durative character to the complement verb. In the case of *continue + ing*, the temporal space of the *-ing* construction coincides with the temporal space of *continue*. The nucleus is seen as ongoing, simultaneous with the temporal phase of continue, taking place in most cases on one occurrence. Occasionally, the *-ing* construction can also express a continuation on several occurrences.

An important characteristic of *continue + ing* is duration. The occurrences within the construction are usually durative, activity verbs. In case the construction takes momentary, punctual occurrences, they are often recategorized as activities (receiving an iterative interpretation) expressing occurrences that take quite a large amount of time.

6.5. The eventuality type of the complement construction

Continue seems to be followed more frequently by *to infinitive* than by *-ing* complement constructions.[3] Both *continue + ing* and *continue + to infinitive* appear frequently with activity and accomplishment verbs that often require an acting agent (in sentences (27–28) as activity verbs and in sentences (29–30) as accomplishments). Since these constructions refer to the nucleus of the event expressed by the complement (acting on the nucleus itself), they can only appear with event types that have a nucleus (activity) phase. This may explain the non-occurrence of both *continue + in*g and *continue + to infinitive* with achievement verbs (When achievement verbs appear as part of these constructions, they tend to be recategorized as activities or series. The achievement verbs 'fall' and 'find' are recategorized within *continue + to infinitive* and *continue +ing* as series (sentences 31–32)):

(27) The airline's pilots said they would continue to work. The striking union represents about 8,300 employees, and many of them said the main issue was job security – not wages or benefits.   (FROWN)

(28) It is part of a questing for new purpose and aim in art. Of course, there are still many painters who are content to continue working in the academic way, developing new variations within the tradition of more or less descriptive painting.   (LOB)

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3   Findings from the BNC: *continue to*: 3,583; *continues to*: 1,096; *continued to*: 2,684; *continuing to*: 462; *continue + ing*: 539; *continues + ing*: 25; *continued + ing*: 195 entries.

(29) John continued to paint the wall (despite all the distractions).

(30) John continued painting the wall (after that interruption).

(Dixon 2005)

(31) Costs are well down and will continue to fall and I'm more confident than ever that we're on to a winner. *(BNC)*

(32) The best economic predictions have come from the Confederation of British Industry, and particularly from its chief economist, Andrew Sentance. The CBI's latest quarterly industrial trends survey shows that confidence is virtually non-existent, and that new orders are expected to continue falling. *(BNC)*

Concerning the appearance of state verbs within the two constructions, there seems to be a difference between these two constructions. *Continue + to infinitive* seems to take a higher number of stative verbs than *continue + ing*. *Table 17* shows the most frequent eventuality types within *continue + to infinitive* and *continue + ing*.

Table 17. The most frequent verbs within *continue + to infinitive* and *continue + ing* (source: data from BNC)

Continue to	*Continues to*	*Continued to*	*Continue + ing*	*Continues + ing*	*Continued + ing*
Be	Be	Be	Work	Work	Fight
Do	Grow	Grow	Use	Play	Work
Have	Have	Work	Do	Read	Talk
Provide	Rise	Do	Live	Write	Walk
Grow	Do	Rise	Make	Talk	Write
Work	Provide	Make	Trade	Take	Read
Support	Work	Stare	Operate	Shoot	Use
Develop	Make	Look	Play	Restructure	Look
Use	Show	Have	Pay	Produce	Climb
Play	Increase	Live	Fund	Pour	Train

As the table also shows, the occurrence of the verbs 'see', 'think', 'be', and 'have' is higher within the *continue + to infinitive* construction. Although these verbs may also function as activity verbs (more often in *continue + ing* construction but also in *continue + to infinitive*), their frequent appearance within *continue + to infinitive* points to a possible interpretation of *continue + to infinitive* as a more stative construction than *continue + ing*.

Table 18. 'See', 'think', 'be', and 'have' within *continue + to infinitive* and *continue + ing* (findings from BNC and the WWW)

Source	SEE		THINK		BE		HAVE	
	BNC	WEB	BNC	WEB	BNC	WEB	BNC	WEB
Continue to	16	185	10	143	890	146	107	151
Continues to	4	94	3	155	327	117	30	111
Continued to	9	162	12	144	552	183	49	112
Continue -ing	3	162	3	152	7	83	3	150
Continues -ing	0	108	0	115	0	95	1	80
Continued -ing	1	147	3	152	3	81	0	83

Table 19. The frequency of 'be' within *continue + to infinitive* and *continue + ing* (source: findings from BNC)
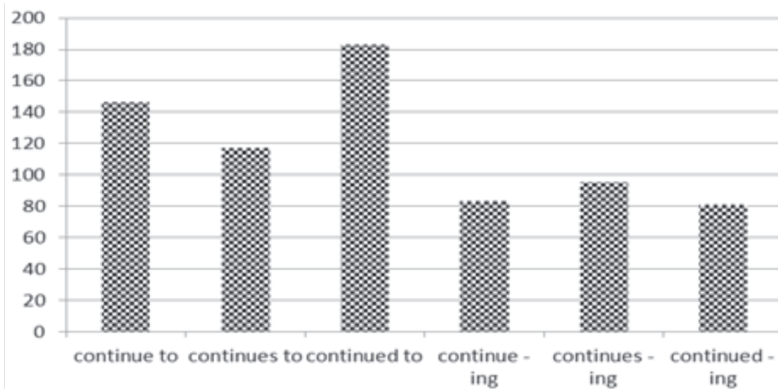
Table 20. The frequency of think with *continue + to infinitive* and *continue + ing* (source: findings from BNC)
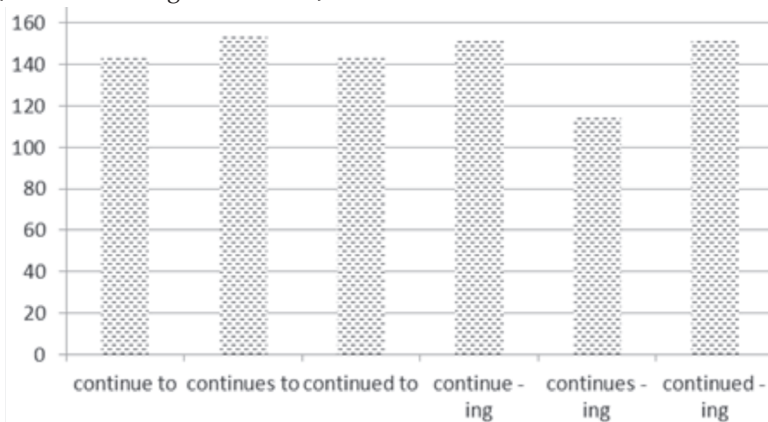
Process verbs (e.g. 'improve', 'take shape') that do not take a human, acting agent, seem to appear more frequently within *continue +to infinitive*.

Table 21. 'Improve' and 'take shape' within *continue + to infinitive* and *continue + ing* (source: BNC and the Web)

	IMPROVE		**TAKE SHAPE**	
	BNC	WEB	BNC	WEB
Continue to	33	135	0	133
Continues to	6	105	0	129
Continued to	34	174	0	149
Continue + ing	3	121	0	16
Continues -ing	0	84	0	26
Continued -ing	0	114	0	37

This may be due to the fact that *continue + to infinitive* expresses a gradual or non-dynamic occurrence (state or a process), having patients as subject (the subjects in (33–35) can all be considered as patients (in this sense, the *continue + to infinitive* construction can be considered as similar to *begin + to infinitive*)).

(33) So we know that so far about fifty percent of our anthropogenic CO two has been locked away in this system in the ocean. And at the moment there is considerable research effort being directed to try and work out just how much more carbon dioxide the ocean will continue to absorb. *(BNC)*

(34) Communication: children should have opportunities to continue to develop and use communication skills in presenting their ideas and in reporting their work to a range of audiences, including children, teachers, parents and other adults. *(FLOB)*

(35) Our export business particularly continues to expand satisfactorily and I am of the opinion that there is a good market in these territories as their economies continue to develop. *(LOB)*

In order to test this assumption, an important task was to see if motion verbs like 'go' and 'run' appear more frequently within *continue + ing* than *continue + to infinitive*.

Contrary to my expectations, the number of motion verbs like 'go', 'run', or 'come' and also dynamic verbs like 'do' do not seem to be considerably higher within the *continue + ing* construction. On the contrary, in certain cases, the *continue + to infinitive* construction tends to slightly exceed the number of motion verbs that *continue + ing* contains.

Table 22. 'Go', 'come', 'run', and 'do' within *continue + to infinitive* and *continue + ing* (source: BNC findings)

	Go	Come	Run	Do
Continue to (3,583 ent.)	19	14	31	225
Continues to (1,096)	6	2	5	28
Continued to (2,684)	28	11	26	64
Continue + ing (580)	4	1	6	24
Continues + ing (29)	0	0	0	0
Continued + ing (306)	0	0	3	0

(source: BNC findings)

While, for example, the difference in frequency between *continue + to infinitive* and *continue + ing* containing the verb 'run' seems to be minimal (0.86% within continue + to infinitive and 1.03% (continue + ing)), the difference with the other verbs is more significant ('continue to go' – 1.04%, 'continue going' – 0.69%, 'continue to come' – 0.39%, 'continue coming' – 0.17%, also 'continue to do' – 6.27%, 'continue doing' – 4.13%).

The data point to the fact that the opposition stative construction (*continue + to infinitive*) vs. dynamic construction does not necessarily hold in the case of *continue + to infinitive* and *continue + ing*. This may be due to the fact that the distinction between the two constructions with respect to a possible interruption (*to infinitive)* vs. non-interruption (*-ing*) is very strong with *continue.*

KEEP, *KEEP ON*, *GO ON*, *RESUME*, *REPEAT,* AND THEIR COMPLEMENTATION

The focus of this chapter is to present the semantic values that can be attributed to the aspectual verbs *keep, keep on, go on,* and their complementation. As they are very similar both syntactically (they allow for *-ing* but disallow *to infinitive* complements, except for *go on* which also appears with *to infinitives*) and semantically (they can refer to the continuation of both the nucleus of an event and to the entire event), the constructions are often seen as interchangeable. An aim of the analysis is to see whether there are any semantic (and syntactic) differences between these constructions and give examples of cases where they are not interchangeable. The chapter intends to provide a semantic explanation of why *keep, keep on* allow for only *-ing* complementation, while *go on* appears with both *-ing* and *to infinitive* complementations.

Other continuative aspectualizers analysed by Freed, *resume* and *repeat*, will also be given attention here (*repeat* to a lesser degree since, except for a few cases – especially in specialized texts –, *repeat* does not allow for any sentential complements). These two verbs are close in meaning so that they both imply the interruption and resumption of the event in question. Since all these aspectualizers share common meanings with *continue* (Freed *analyse*s the meaning of *keep*, *resume*, and *repeat* with respect to *continue*), a reference will also be made in the analysis to the semantic value of *continue* and its complementation.

7.1. The semantic value of *keep* and *resume* (and *repeat*) compared

Freed (1979) analyses the meaning of *keep* with respect to *continue*. The semantic value of the two differs with respect to the relation of presupposition and consequences: thus, while *continue* presupposes the prior initiation of the event in question, this is a consequence and not a presupposition for *keep*. In keeping with this interpretation, we can say that Sentence (1) with *continue* presupposes the prior occurrence of Carol's talking, whereas Sentences (2) does not; in Sentence (2), Carol's talking is more like a consequence than a

presupposition. Freed also argues that in case *keep* occurs with series, the prior occurrence of the event may not even be a consequence for *keep*. Sentence (3) does not have either as presupposition or as consequence the prior occurrence of slamming the door.

(1) Carol continued talking even after we asked her to be quiet.
(2) Carol kept talking even after we asked her to be quiet.
(3) Someone kept slamming the door all night.   *(Freed 1979)*

In addition, *keep* is marked for causality, continue, however, is not. Sentence (4) and its paraphrase, Sentence (5), are a good example of the causative nature of *keep*. Such a structure is not possible for *continue* – consider the ungrammaticality of Sentence (6):

(4) The performers kept the audience waiting.
(5) The performers caused the audience to wait.
*(6) * The performers continued the audience waiting.*   *(Freed 1979)*

Related to the causal nature of *keep* is the fact that unlike *continue,* which usually operates on identical subjects, *keep* can also appear with non-identical subjects as (7) also shows:

(7) We kept the conversation going.   *(Freed 1979)*

Duffley (2006) notes that the main use of *keep* is to express an uninterrupted activity as in (8); this is related to that of 'remaining in a particular sense' meaning of *keep* (9). Duffley also notes that *keep* often expresses the idea of doing something repeatedly (an example of this is (10)):

(8) I turned back a while, but he kept walking.
(9) To keep warm they burnt wood in a rusty oil barrel.
(10) I keep forgetting it's December.   *(Duffley 2006)*

The idea of iteration expressed by *keep + ing* is often associated with the inability to break a habit, as is the case in Sentence (10). Here, *keep* could not be substituted by *continue* since *continue* does not imply this sense of inability on the part of the subject.

Besides the values mentioned so far, Wierzbicka (1988) attributes other additional values to *keep*. She states that *keep* often expresses unpredictable behaviour on the part of the subject. Unlike *continue,* which refers to reasonable expectations, *keep* often expresses the subject's unpredictable and arbitrary behaviour. According to this interpretation, while Sentence (11) with *continue*

+ *to infinitive* can be considered to express a reasonable expectation, Sentence (12) points to an unpredictable behaviour.

> *(11) Mary continued to paint the car.*
> *(12) Mary kept painting her car.*   *(Wierzbicka 1988)*

Resume is different from *keep* in that it always presupposes the prior occurrence of the event, *keep*, however, does not. Besides presupposing the prior occurrence of the event, *resume* also implies the interruption of the event, that is, it presupposes both the prior initiation and cessation of the event named in its complement (Freed 1979). Freed's interpretation is in accordance with the definitions given in dictionaries (e.g. the Mirriam Webster's Collegiate Dictionary (1998) defines *resume* as 'to return to or begin again after interruption').

The fact that *resume* presupposes both the prior initiation and cessation of an event makes it also different from *continue* (*continue* does not always presuppose the interruption of the event of the complement).

An interesting characteristic of *resume* mentioned by Freed is that *resume* asserts that the action is begun again. That is, the action is started again not from the onset but rather from the initial part of the nucleus or from some unspecified part of the nucleus.

Of all the aspectualizers mentioned, *repeat* has the most restricted use; it does not seem to take sentential complements as its argument, but it mostly appears with primitive nouns (13), derived nominals (14), and pronouns (15). In a very few cases, *repeat* can also allow for non-finite *-ing* complementation (in instructions, as e.g. in user's manuals (16–17):

> *(13) Nora repeated her question several times.*
> *(14) My mother is tired of repeating the reasoning behind her decision.*
> *(15) The doctor said that the success of the operation had been a fluke and that he doubted whether he could repeat it.*   *(Freed 1979)*

> *(16) Please supply a valid package selection (space fill field if LATEST required). Invalid package selection: string of x's to indicate where message would be. (…) Please supply a valid package selection (…) repeat listing at a lower level package.*   *(BNC)*

> *(17) You should repeat supplying valid information for all mandatory fields. Duplicate module names are not permitted. (..) Duplicate module names are not permitted and so you should repeat supplying a module name once only.*   *(BNC)*

Freed (1979) observes that unlike *resume*, which presupposes both the prior initiation and cessation of the event in question, *repeat* presupposes the prior initiation and completion of the event. According to this interpretation, Sentence (13) presupposes Sentence (18) and Sentence (14) presupposes Sentence (19).

(18) Nora had already asked her question.
(19) My mother had already stated the reasoning behind her decision.
(Freed 1979)

Resume is different from *repeat* in that it does not presuppose the completion of the complement so that only those events can be resumed that are not yet completed. *Repeat* usually implies a one-time repetition of the complement verb; in case it is followed by a time adverbial that specifies the number of repetitions ('four times' in Sentence 20), *repeat* can also express more than a one-time repetition of the event expressed by the complement:

(20) Nora had asked her question four more times.   *(Freed 1979)*

7.2. The meaning of *keep on* and *go on*

The verb particle constructions *keep on* and *go on* are very similar in meaning to both *keep* and *continue*. Yet, as some linguists note (e.g. Brinton 1988, Cappelle 1999), there are also some subtle differences between them that need to be given closer attention.

Cappelle in her study on *keep* and *keep on* notes that although similar both semantically and syntactically *keep* and *keep on* are also different. According to her, the main difference between the two constructions lies in the fact that *keep* has more like an auxiliary status (it has an incomplete sort of meaning so that it must be completed by something else) and *keep on* has a full, lexical sort of meaning (meaning something like 'not give up', 'continue'). An argument in favour of treating *keep on* as a full verb is that it can be used on its own (it does not need any other verb for it to be meaningful).[1]

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1   Cappelle (1999) brings several arguments to support the view that *keep on* + *ing* (and also *go on*) is a complex verb phrase, consisting of two VPs. An important argument in favour of treating *keep on* + *ing* as a complex verb phrase is that *on* belongs to *keep* and not -*ing*. Cappelle shows that although there are cases when *on* can appear both after *keep* and after -*ing* as in sentences there are also cases when *on* cannot be separated from *keep*. In sentences (23–24), *on* belongs to *keep* and not to the following -*ing* phrase:

(21) She kept on walking.
(22) She kept walking on.
(23) She kept on winning.
*(24) * She kept winning on.*   *(Cappelle 1999)*

Sentences (25–26) show that when *keep* has the meaning of continuing a certain activity, event, or state, it requires a verb to complete its meaning (the lack of such a verb makes these sentences ungrammatical); *keep on*, however, can appear on its own (in this sense, *go on* is similar to *keep on* – consider Sentence (27) where *go on* appears on its own). This, according to Cappelle, has to do with the diachronic development of these aspectualizers; so, *keep* as an older construction has already been grammaticalized into an auxiliary, while *keep on* has not.

(25) *I think after the initial check's been made it's important to keep on (* keep) and maintain a check on it.*
(26) *She sits down in the total dark and asks me to please keep on (* keep) and so I do.*   *(Cappelle 1999)*
(27) *If you go on (= continue behaving) like this you won't have any friends left at all.*   (*Mirriam Webster's Dictionary*)

Another question related to *keep on* (and also *go on*) is the meaning and function of 'on' within the construction. 'On' is often considered to carry emphatic stress within a construction (28); Cappelle argues that although 'on' serves for emphasis this can be achieved by other means as well (by the use of 'just' or the repetition of *-ing* as in sentences (29–30)), so this cannot be the only difference that exists between *keep* and *keep on*. Also, as Cappelle notes, it is difficult to say which of the verb phrases carries more emphatic stress (*keep + ing* or *keep on + ing*). Example of this is Sentence (31), where both *keep on + ing* and *keep + ing* can be considered to carry emphatic stress:

(28) *So the morning keeps dragging on and on and on.*
(29) *He just kept singing.*
(30) *He kept singing and singing.*
(31) *He is the type who will keep on learning, keep picking things up.*
                    (Cappelle 1999)

Cappelle considers that the meaning of 'on' is to express a spatial or temporal progress reading; it prolongs the part towards the end point of a situation (but this does not mean that 'on' would generate a telic reading). This is supported by the fact that *keep on* appears with accomplishments (as will be shown later on). Also, unlike *keep*, *keep on* is understood to express the prior presupposition of the event expressed by the complement verb (Brinton 1988).

Go on seems to be very similar to *keep on* (*go on* is often defined as a synonym of *keep on* and *continue*). The Cambridge Advanced Learner's Dictionary (http://dictionary.cambridge.org) defines *go on* as to 'continue or move on to the next thing'; as will be shown, this definition contains both the

meaning of *go on + ing* (expressing an ongoing occurrence) and that of *go on + to infinitive* (expressing movement towards the next object or event).

Just like *keep on*, *go on* can also be regarded as a complex verb phrase, also shown by the fact that *go on* can also appear on its own. Within this construction, the particle 'on' also plays an important role. Duffley (2006. 100) affirms that the particle 'on' within the *go on* construction expresses "the idea of a further or successive position resulting from the movement denoted by *'go'*."

Similarly to Requejo (2006), who attributes an important role to the particle in the compound – and also Duffley –, here it will also be assumed that the particle contributes largely to the meaning expressed by the construction. The particle 'on' has a meaning of its own, it expresses the spatial extension of the verb it is attached to (the core meaning of the particle (in this interpretation, the schematic meaning of the construction). The particle 'on' within the *keep on + ing* and also *go on + ing* constructions expresses the further occurrence of the event, by stretching its nucleus part. Depending on the event type of the complement verb, the particle 'on' can express the durative nature of both a repetitive occurrence and of a single occurrence.

7.3. The complementation of continuative aspectualizers

7.3.1. Schematic and prototypical meaning

All the aspectualizers discussed in this chapter allow for *-ing* complements but disallow *to infinitive* constructions (except for *go on*). Although no definite answer might be given as to why these aspectualizers disallow *to infinitives*, it will be assumed that the non-appearance of *keep*, *keep on*, and *resume* with *to infinitives* can be partly explained by the semantic incompatibility of the matrix and the complement construction.

The semantic value of an aspectualizer can block or, on the contrary, allow for a certain complement construction. A complement construction (in this case, the *to infinitive* construction) appears with an aspectualizer only if the aspectualizer (its semantic value) allows for this construction to be integrated into the sentence. The non-appearance of the continuative aspectualizers (*keep*, *keep on*, *resume*) with the *to infinitive* can be explained by the fact that these verbs lack in their meaning the possibility of future orientation (they all refer to the ongoing, durative nature of the complement construction).

Also, the fact that the aspectualizers *keep*, *keep on*, and *resume* only appear with *-ing* shows that the focus in these constructions is put on the ongoing occurrence of the event expressed by the complement (schematic meaning of the constructions). In his analysis of aspectualizers, Duffley (2006) draws attention

to the fact, that with *keep*, *keep on*, and *go on* the *-ing* construction does not have a direct object value. Thus, these aspectual verbs cannot express something that is kept / gone on, nor can they appear in pseudo-cleft constructions:

(32) * *Importing oil, like many other commercial activities, was kept by many countries / * was gone on by many countries.*

(33) * *What they kept /* went on was importing oil; what they discontinued was importing non-essential items like precious stones.*   *(Duffley 2006)*

Within the *keep + ing*, *keep on + ing*, and *go on + ing* constructions, the focus is put on the ongoing nature of either a single occurrence (as in sentences (34, 35, 36) or of a series of occurrences that are often part of a larger occurrence (sentences (37, 38, 39)).

(34) *I didn't want to touch him and I hoped Ma would do it, but she kept looking at the kid's clothes piled on the floor and the pool of water by them and didn't make any move to.*   *(BROWN)*

(35) *All the tears of the seven seas will not wash away what you are, were, and probably will go on being as you leave these premises. Harlan wept on.*
       (FROWN)

(36) *He saw the surprise in her face, and laughed as though it were the funniest expression he had ever seen. He kept on laughing until she started laughing with him.*   *(BROWN)*

(37) *The country will not change until it re-examines itself and discovers what it really means by freedom. In the meantime, generations keep being born, bitterness is increased by incompetence, pride, and folly, and the world shrinks around us.*   *(BROWN)*

(38) *Generally, the habits he'd acquired were quite different from hers. He went on wearing the same clothes day after day, apparently untroubled when they were too thick or too thin for the current weather.*   *(FLOB)*

(39) *He wanted the police to notice him, to suspect him. She was going to keep on scheming, poking, prodding, suggesting, and dictating until the cops got up enough interest in him to go back to their old neighborhood and ask questions.*   *(BROWN)*

Of all the continuative aspectualizers mentioned, *go on* is different since it allows both for *to infinitive* and *-ing* complementation. *Go on* differs from the

aspectualizers *keep* and *resume* and also from the verb-particle construction *keep on + ing* in that it implies in its meaning the possible orientation towards the future occurrence of the complement verb. The sentences below with *go on + to infinitive* (sentences (40–42)) refer to the further occurrence of the event expressed by the complement. The *go on + to infinitive* construction expresses the orientation towards an event which is future with respect to the RT expressed by the sentence (the moment when Nick agrees with his interlocutor in Sentence (40), when Arnold Palmer staged two rallies (Sentence 41), and when the doctor made his remark (Sentence 42)).

(40) *"It certainly was, Sam," Nick would agree, and go on to say with a touch of self-importance: "No wonder he tried to have me suffocated back last summer."*   *(LOB)*

(41) *Arnold Palmer (TIME cover, May), who staged two cliffhanging rallies to win both the Masters and U.S. Open crowns, went on to win a record $80,738 for the year.*   *(BROWN)*

(42) *At the time Alex arrived he was engaged in some sort of intimate communication with the hen, who had settled herself on the nest most peacefully after the occurrences of the morning. "Chickens have short memories", the doctor remarked, "that's why they are better company than most people I know", and he went on to break some important news to Alex.*   *(BROWN)*

Go on + ing, by contrast, stresses the ongoing nature of the complement verb. In sentences (43–44), the constructions express the ongoing durative character of the complement. This construction may refer to a single durative occurrence (43) or to a series of happenings that are part of a larger occurrence (44).

(43) *(…) Darling, I wasn't completely asleep when you drove me home. I heard all those beautiful things you said to me. I kept quiet because I wanted you to go on talking. It was so beautiful to hear you say those words.*   *(BNC)*

(44) *Hari moved towards the door. "I will go on working in my shop until you get the premises, then." "I've got the premises already," Emily said and then she saw the surprised look on Hari's face. "Nothing definitely decided, of course." "Where is it?" Hari asked. "I hope it's nothing too grand." "It's an old building at the bottom of Wind Street," Emily said.*   *(BNC)*

The different meanings of the *go on + ing* and *go on + to infinitive* constructions are also reflected by subtle differences in register. The most common occurrence of *go on + ing* seems to be in fiction (*keep + ing* and *keep*

on + ing also seem to appear most frequently in fiction) and it has the most reduced occurrence in academic texts and newspapers. Unlike *go on + ing*, *go on + to infinitive* tends to appear quite frequently in academic texts and newspapers (as well as biographies and texts on natural science, social science, law, and education that make up the miscellaneous category).[2]

A possible way to explain this is that academic texts and also newspapers often contain reports on various procedures and processes undertaken in research; as such contexts often contain the description of a series of actions, the *go on + to infinitive* construction seems to be more appropriate.

Another thing that distinguishes *go on + to infinitive* from *go on + ing* is their schematic meaning. Unlike *go on + ing*, where the focus is put on the ongoing occurrence of the complement verb, within *go on + to infinitive*, the focus is shifted to the upcoming event. The particle within the *go on + to infinitive* construction often expresses the orientation towards a new event after the termination of a former event.

7.4. The occurrence of continuative aspectualizers with eventuality types

7.4.1. The *keep + ing* and *keep on + ing* constructions

As *Table 23* shows, *keep* and *keep on* appear mostly with activity verbs that require an agent as their subject (e.g. 'go', 'come', 'do', etc.). Sentences (45–46) are examples of *keep* and *keep on* with activity verbs.

(45) "How is it going?" He asked. "Fine", I said distractively. I kept working, cutting stars out of cardboard, covering them with tin foil.   (FROWN)

(46) I was going on with it, all the bumps were okay but when I was actually inside the building again I hung on to Grand Pat to get to the steps but my hand slipped so I was going round with the current so I tried to hold on to the orange thing that they had put there but I slipped off that and I kept on going round and the lifeguard gave me and somebody else a hoop and we both grabbed onto it [...] they stand outside.   (BNC)

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2   The data show a frequent occurrence of *go on + ing* and *went on + ing* in fiction (out of 574 matches for *go on + ing*, 287 matches are in fiction (only 57 in academic texts); also of 274 matches for *went on + ing* 226 matches belong to fiction (only 13 matches for academic texts, 8 matches for newspapers). For *go on + to infinitive*, there were 335 matches, out of which 80 entries belong to the miscellaneous category and 111 entries to academic texts and only 22 matches to the category of fiction; also *went on + to infinitive* with 1,036 matches, where 287 matches belong to the miscellaneous category and 242 matches to the newspaper category; the entry for fiction yielded 124 matches (data based on the BNC).

Table 23. The ten most frequent verbs within *keep + ing*, *keep on + ing*, *kept + ing,* and *kept on + ing* (based on data from BNC)

Keep + ing 2,368 entries	*Keep on + ing* 313 entries	*Kept + ing* 1,673 entries	*Kept on + ing* 252 entries
Go (433)	Go (25)	Say (185)	Say (19)
Say (141)	Do (20)	Go (180)	Go (17)
Tell (103)	Run (15)	Come (75)	Come (16)
Come (102)	Try (15)	Think (67)	Walk (15)
Try (92)	Say (14)	Wait (63)	Ask (13)
Get (77)	Walk (10)	Ask (61)	Do (9)
Think (69)	Play (9)	Tell (59)	Get (7)
Look (63)	Think (9)	Look (57)	Look (7)
Move (61)	Use (7)	Try (47)	Run (5)
Talk (57)	Look (6)	Get (41)	Talk (5)

The appearance of these constructions with other event types seems to be more restricted. Concerning their appearance with statives, those state verb constructions that can be considered to have a temporally bound reading (e.g. 'have an effect', 'hear something', and also 'see a picture' can be regarded as temporarily bound) often receive a repetitive interpretation and as such a temporary reading within the *keep + ing* and also *keep on + ing* constructions (47–48). While in these sentences the subjects are mostly experiencers, there are also cases when these verbs are recategorized as activities, with subjects that are acting agents (49), which can be paraphrased (such as 'keep acting as a cheeky person').

(47) Milton always remained liable to defend his side by an argument which would strike his employers as damaging; his style of attack is savagely whole-hearted, but his depth of historical knowledge and imaginative sympathy keep having unexpected effects.   *(LOB)*

(48) "The nurses are better at it than me," she replied, wearily. "They know when to do all the winding or whatever it's called. He kept being sick when I fed him."   *(BNC)*

(49) Don't be so cheeky! isn't cheeky! I warned you the other night, me and you gonna fall out if you keep being cheeky. That ain't even cheeky! Remember what erm two christmas cards today look! Who from? One from Mrs next door Mrs? You know, who used to be there?   *(BNC)*

Similar is the case when *keep + ing* and *keep on + ing* take achievements as their complement. Because of their instantaneous character, achievements also acquire a repetitive meaning when they appear in these constructions (sentences 50–51); in such cases, achievements are recategorized as series.

(50) The landscape kept repeating itself. I would try to memorize landmarks and saw in a half-hour that it was hopeless.   *(BROWN)*

(51) Well I always feed the birds. Yeah. Give them a bit of chicken. Not cooked or anything. That won't matter. I'll only cut it up smaller that's how they like it. Anything with fat they eat. Oh! I'll be glad to sit down again! You've got the to do it and I'll have to be ever so careful I'm wearing a. And so kept on finding bits of the Angora wool.   *(BNC)*

There seems to be a difference between *keep + ing* and *keep on + ing* concerning their appearance with accomplishments. Freed (1979) and also Brinton (1988) note that *keep + ing* do not appear with accomplishments since the accomplishments within this construction are always recategorized as activities. This is also the case in Sentence (52) where the accomplishment verb is recategorized into an activity.

(52) Mother and son recognize each other and, in Mann's version of this legend, make a remarkable confession of guilt to each other, the confession of unconscious motive and unconscious knowledge of their true identities from the time they had first set eyes on each other. In recollection he has said: "Natural or man-made objects kept coming into my head, but I would suppress them sternly".   *(BROWN)*

As distinct from *keep + ing*, *keep on + ing* also allows for accomplishments that express a single occurrence. In Sentence (53), *keep on + ing* expresses the painting of a single picture, implying the further occurrence of this single event (this sentence would be strange if not unacceptable with *keep + ing* (Sentence 54).

(53) I kept on / went on painting the picture.
(54) ? Susan kept pinning a / the notice to the wall.   *(Brinton 1988)*

The difference between *keep + ing* and *keep on + ing* is subtle and not easy to detect in all cases. The iterative meaning characteristic of *keep + ing* can also be characteristic of the *keep on + ing* construction as is the case in the sentence below:

(55) I tried to look at the scenery. Boring suburbs. Parks. Up and down, up and down. At my eye level, street-lamps. TV aerials: one of the drama groups did a sketch about James Logie Baird who invented the television, and the man who lodged in the room next door to him kept on seeing pictures flashing on his wall and they dragged him off to the lunatic asylum 'cos they thought he was seeing things, hallucinating.   *(BNC)*

The *keep on + ing* construction, similarly to *keep + ing,* often leads to iterative readings. An important semantic difference between the two constructions seems to be the fact that the *keep on + ing* construction, due to the additional meaning of 'on' that expresses the further occurrence of an event, can suspend the iterative reading in the case of event complements. As a consequence, *keep on + ing* can appear with accomplishments (expressing a single occurrence); the *keep + ing* construction, however, can not since in this case the accomplishment has an activity reading (sentences 56–57). According to Freed (1979), Sentence (57) can only be interpreted as an activity, and it is paraphrasable as 'Freed kept going over the article about Goytisolo'.

(56) If you keep on saying a thing long enough communist, everybody believes you even though it's the biggest lie on earth.   *(BNC)*
(57) *Linda kept reviewing the article about Goytisol.   *(Freed 1979)*

7.4.2. *Go on* and its appearance with eventuality types

Similarly to *keep on*, *go on + to infinitive* and also *go on + ing* appear with all event types. Sentences (58) and (59) are examples of their occurrence with statives, (60) and (61) of their appearance with activities, (62) and (63) of accomplishments; finally, examples (64) and (65) show the appearance of these constructions with achievements.

(58) We really can't go on living like this – we'll have to find a bigger house.   *(Cambridge Advanced Learner's Dictionary)*

(59) My experiences of Young children I know many children and I enjoy looking after them I plan to do this for my career as I have applied to Suffolk College for a place in the Nursery Nursing course so that I can go on to be a Nanny.   *(BNC)*

(60) Emily smiled. "I understand. Together we will make it work, Hari, believe me, we shall have the finest business in the country. "Hari moved towards the door. "I will go on working in my shop until you get the premises, then."   *(BNC)*

(61) She admitted her company's responsibility for the disaster and went on to explain how compensation would be paid to the victims.
(Cambridge Advanced Learner Dictionary)

(62) Students can pass through the stage of giving reasons for their beliefs and actions to enlightenment and emancipation; disciplines can become more open and more self-critical; and institutions can go on becoming more and more rational.   (BNC)

(63) Mikael Sergayiz Gorbachov was born in a rural town near Stavropol in the southern region of Russia in nineteen forty one. He studied law at the Moscow State University, and went on to become a full Communist Party member two years later, in nineteen fifty two.   (BNC)

(64) By 1885 the area under wheat was already 30 per cent smaller than it had been in the previous decade. It went on falling steadily, although not so rapidly as this. Between 1897 and 1912, the wheat crop of the United Kingdom fell by 6 per cent while that of Germany rose by 38 per cent.   (BNC)

(65) Arnold Palmer (TIME cover, May), who staged two cliffhanging rallies to win both the Masters and U.S. Open crowns, went on to win a record $80,738 for the year.   (BROWN)

Table 24 shows the appearance of *go on + to infinitive* and *go on + ing* with eventuality types:

Table 24. The most frequent verbs within *go on + to infinitive*, *go on + ing*, *went on + to infinitive*, and *went on + ing* (based on corpus findings from BNC)

Go on + to inf. 335 entries	Go on + ing 574 entries	Went on + to inf. 1,036 entries	Went on + ing 296 entries
Develop (20)	Live (57)	Say (148)	Talk (25)
Consider (19)	Work (38)	Become (77)	Look (15)
Do (17)	Talk (19)	Win (62)	Be (14)
Say (17)	Play (16)	Explain (36)	Stare (10)
Argue (14)	Think (16)	Tell (32)	Work (10)
Become (12)	Look (15)	Make (31)	Think (7)
Do (12)	Use (15)	Play (27)	Type (7)
Win (12)	Fight (14)	Describe (23)	Listen (6)
Take (11)	Make (13)	Take (22)	Read (6)
Discuss (7)	Rise (13)	Be (21)	Gaze (5)

As these sentences above show, concerning the appearance with event types, there is no remarkable difference between *go on + to infinitive* and *go on + ing*. Nevertheless, when it comes to the appearance of these constructions with speech verbs, some differences may be noted: *go on + to infinitive* seems to appear more often and with a greater variety of speech verbs than *go on + ing*. Also the *go on + to infinitive* construction seems to appear more often with achievement verbs (e.g. 'win') than the *go on + ing* construction. This may have to do with the difference in meaning between the two constructions, already outlined in this chapter: the *go on + to infinitive* construction expressing orientation toward the future occurrence of an event (66–67) allows for any event type as its complement, whereas the future orientation seems to be missing from *go on + ing* (68).

(66) It certainly was, Sam,** "Nick would agree, and go on to say with a touch of self-importance: ^* "No wonder he tried to have me suffocated back last summer.   *(LOB)*

(67) The investigators go on to suggest, from detailed analysis of the responses obtained, that * 'the problem for the manual worker does not centre on his conception * old age, but rather on how he interprets its meaning for his own future life'.   *(LOB)*

(68) She looked troubled. "I'm very disappointed in you, Mark." "You have every reason to be. I'm sorry. Obviously I can't stay here any longer. I'll leave tonight." "Leave? Tonight" She seemed frightened and bewildered. "Yes. I'll go and pack now. I don't think it would do any good to go on talking". He rose, and moved towards the door.   *(BNC)*

The *go on + ing* construction, although similar semantically to both *keep + ing* and *keep on + ing*, seems to be slightly different from these latter constructions.

Unlike *keep on + ing* and *keep + ing*, which often imply the iteration of the complement verb, *go on + ing* often points to a single occurrence. Although it can express iterative occurrences (as in Sentence 69), *go on + ing* seems to appear more often with events expressing a single occurrence; (*go on + ing*, just like *keep on + ing*, also appears with accomplishments).

(69) "You think," she began, dabbing at her eyes as she came back with the pad, "you think someone --; someone killed my Charlie because he wouldn't go on --; go on doing these jobs for them?" "Something like that," Now was not the time to suggest to this woman that her husband had been a blackmailer as well as a thief.   *(BNC)*

Considering sentences (70) and (71), neither of them can be given an iterative interpretation; in Sentence (70), the work is seen as going on continuously; similarly, (71) views the reading of a book as one ongoing occurrence that pertains to a habitual occurrence.

(70) Over the last 48 hours we have found ourselves drawing closer together as a group. Everything will be overshadowed by these events but we intend to go on making the week work as well as we can. Dr Howe who was thirty four had lived in Edith Road in Oxford for three years … A friend is looking after the house today … Her husband Jeremy … who's head of drama for BBC Radio Three and two daughters …   *(BNC)*

(71) The memory of those sensitive hands, the clean square nails, the single white streak in his hair, would fill her mind with agony, and she would go on reading her book without taking in a word, or find herself deaf to the fact that the tape she was playing had long since finished.   *(BNC)*

Similar is the case with *go on + to infinitive*, which, apart from the cases when it appears with iterative instances (Sentence 72), also expresses single occurrences (sentences 73–74). In these sentences, the construction contains an accomplishment and respectively an achievement verb expressing a single occurrence.

(72) Each controversial issue is examined by leading experts and illustrated by extracts from major UK companies' recent accounts. The experts describe the problems that arise, outlining the main areas of choice, and go on to make specific proposals for improvement in reporting practice.   *(BNC)*

(73) People often ask me, "Hugo, why is it that when dining with royalty, you always keep your hat on?" I explain that this is due to an old charter, dating back to the time of Sir Hugo de Courcy Rune, third earl of Penge. And then go on to tell this tale.   *(BNC)*

(74) The best I can manage is to say that the thriller is intended to thrill; it is a succession of exciting events, whereas the suspense novel is designed to create suspense, a series of situations of which the outcome is in doubt. From this we can go on to discover one of the rules for this sort of crime fiction. Although a suspense novel consists of that series of situations with doubtful outcomes, the final outcome is not, paradoxically, ever really in doubt.   *(BNC)*

Finally, because of its semantic value, *resume + ing* usually appears with activities requiring an active agent as their subject. Freed (1979) points out that

resume presupposes intentionality, which would explain the ungrammaticality of Sentence (75). The most frequent occurrence of *resume + ing* is with activities: no examples have been found either in ICAME or in BNC for the appearance of *resume* with accomplishment and achievement verbs. That is, when the construction contains an accomplishment or an achievement situation type, these are usually recategorized as activities (76–77). In these sentences, a single occurrence interpretation would be strange and would result in an ungrammatical reading (e.g. *resume sending a golf report).

(75) *Topsy's teeth resumed decaying.   (Freed 1979)

(76) Activity was such that the Ladies resumed sending their golf reports to The Times, Sporting Life and Gentlewoman and the Standard warned of the early re-introduction of the entrance fee.   (BNC)

(77) Ben Hanbury's three-year-old completely missed the break in that 16-runner event and in the circumstances did extremely well to finish sixth, 12½ lengths behind Musicale. Cruachan a close second To Tel Quel in the Dubai Champion Stakes here last October, may resume winning ways in the Earl of Sefton EBF Stakes.   (BNC)

Freed also mentions the non-occurrence of *resume* with accomplishments (Sentence 78 with an accomplishment sounds strange); in Sentence (79), the use of a derived nominal instead of the non-finite *-ing* form makes the sentence acceptable:

(78) ? Barbara resumed writing her dissertation.
(79) Barbara resumed the writing of her dissertation.   (Freed 1979)

Neither does *resume + ing* appear with state verbs. Motivated by their semantic character (their unbounded nature), states cannot be part of the *resume + ing* construction since states cannot be resumed.

CEASE AND ITS COMPLEMENTATION

Cease is another aspectualizer that appears with both *-ing* and *to infinitive* complements. The two constructions are very similar semantically: they both operate on the final phase of the event expressed by the complement marking its cessation. Apart from the similarities between them, the *cease + to infinitive* and *cease + ing* constructions will also be considered to show some subtle differences, so the two constructions are not always interchangeable.

8.1. Values attributed to *cease*

Analysing the function of *cease* within the presupposition and consequence approach, Freed (1979) notes that *cease* presupposes the prior occurrence of the event in the complement and has as a consequence the complete cessation of the event. According to Freed, sentences (1) and (2) have as a presupposition Sentence (3) and as a consequence Sentence (4):

(1) As the state's scare tactics became progressively more outrageous, we simply ceased worrying about being fired.
(2) As the state's scare tactics became progressively more outrageous, we simply ceased to worry about being fired.
(3) We were worrying about being fired before (or until) the state's scare tactics became outrageous.
(4) We are no longer worrying about being fired.   *(Freed 1979)*

Freed (1979) defines the value of *cease* in comparison with *stop* as the two aspectualizers are very close in meaning; they both express the cessation of the occurrence expressed by the complement. An important difference between the two verbs is that *cease* expresses a change which is definitive, which need not be the case with *stop*.

This can explain why, if the cessation of the event is understood to be temporary rather than definitive, *stop* seems to be more appropriate than *cease* (sentences 5–6):

(5) ? We ceased discussing the case until some new information could be obtained.

(6) We stopped discussing the case until some new information could be obtained.   *(Freed 1979)*

What is interesting in the case of *cease* is that it expresses the cessation of some condition or existence (Freed 1979). Freed's observation that *cease* occurs frequently with state verbs is especially true in the case of the *cease + to infinitive* construction as will be shown later on.

Wierzbicka (1988) also defines *cease* in comparison with *stop*; both verbs are defined to specify the right boundary of the occurrence they govern, expressed by the non-finite verb. As distinct from *stop*, however, which expresses a notion of impulsion, *cease* is not understood to contain any notion of impulsion; on the contrary, it is defined to express the gradual change of the occurrence expressed by the complement.[1] This interpretation can also be found in Merriam Webster's Online Dictionary (http://www.merriam-webster.com/dictionary/cease), which defines the transitive use of *cease* as "to cause to come to an end, especially gradually." This is in accordance with Dixon's (1992, 2005) interpretation; Dixon states that *cease* expresses the winding down to nothing (*stop*, by contrast, tends to refer to something happening suddenly). According to these interpretations, (7) can be understood to imply that the motor had been in bad shape for months and gradually ceased to function:

(7) My starter motor finally ceased to work.   *(Dixon 1992)*

Another feature of *cease* mentioned by Dixon (2005) is that *cease* involves subject orientation, presupposing the involvement of the subject into the event of cessation. Although *cease* often expresses the volition of the subject, Dixon also notes that this feature of *cease* may not be present in all cases. As Dixon shows, *cease* may not necessarily imply the volition of the subject; in Sentence (8), the cessation of breathing is not controlled by the subject:

(8) He ceased breathing.   *(Dixon 2005)*

8.2. The complementation of *cease*. Interpretations

In Freed's (1979) interpretation, the meaning of the *to infinitive* and *-ing* after *cease* is the same as after *begin* and *start*, the *to infinitive* expressing a generic or a series reading and *-ing*, by contrast, an ongoing, durative reading. According to Freed, the difference between these two readings after *cease* is

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1   According to Egan (2003), graduality is a property of the *cease + to infinitive* construction. He states that the *cease + to infinitive* construction often appears with gradually changing situations encoding situations where the change is not sudden but gradual (Egan. 221).

that while the *to infinitive* implies that the event has occurred various times before and may not last until the moment of cessation, *-ing* presupposes that the event in question occurs up until the time of the cessation of the event. This difference can explain why, if the sentence refers to the cessation of one ongoing occurrence, *-ing* is preferred to the *to infinitive*; by contrast, when the sentence expresses an iterative occurrence happening at various times, the *to infinitive* is a much better choice than *-ing* (sentences 9–11):

> *(9) Lacey ceased crying when she heard her parents come in the door.*
> *(10) ?Lacey ceased to cry when she heard her parents come in the door.*
> *(11) Lacey ceased to cry whenever she heard her parents come in the door.*
> *(Freed 1979)*

Though the distinction made by Freed holds in many cases (since the *to infinitive* tends to express a series reading taking place at various times), it cannot be considered a clear-cut distinction in the case of *cease*. Duffley (2006) gives examples of cases where the *to infinitive* expresses the cessation of one occurrence instead of a series of occurrences (Sentence 12).

> *(12) (…) She watched the child's expression of fear as her father spoke to her. She ceased to sob and the light stole back into her face again. For a few moments she gazed up at Julia doubtfully, incredulously. Then gradually the dark eyes grew bright once more, and even began to sparkle as was their wont.*
> *(LOB) (Duffley 2006. 121)*

Associated with the *cease + to infinitive* construction is very often the sense of graduality (e.g. Dixon 1991, Wierzbicka 1988). According to this interpretation, the cessation of the occurrence expressed by *cease + to infinitive* is often perceived as gradual (e.g. in Sentence (13) the validity of the rescue plan is seen to expire gradually).

> *(13) If the situation is not resolved within months, the rescue plan might*
> *cease to be viable.* *(Egan 2003)*

As Egan (2003. 224) sees it, the reason for the fact that *cease + to infinitive* is often understood to express gradual cessation may lie in the fact that this construction does not make a reference to the actual point of cessation. The time of cessation, the exact moment at which the change occurs is not relevant for the *cease + to infinitive* construction. This may also be the case with *cease + ing*, which may not express the exact moment of cessation either. Yet, as Egan remarks, there may also be cases when the moment at which the action ceases

is indicated by the context; this is also the case in Sentence (14) (where the anaphoric 'then' indicates the time of cessation).

(14) The National Park had in March 1990 committed itself to maintaining the ban which then ceased to be a domestic political issue.   *(Egan 2003)*

The most widely accepted explanation of the meaning and function of the *to infinitive* and *-ing* after *cease* is the one given by Dirven (1989) and also Hamawand (2002) and Fanego (2004). Dirven notes that the difference between *cease + to infinitive* and *cease + ing* is that while the former expresses the permanent cessation of a respective occurrence *cease + ing* denotes the temporary cessation of an ongoing activity or process. According to this distinction, Sentence (15) implies that the buses have ceased running today but may still be running tomorrow and Sentence (16), by contrast, that the cessation of this event is a permanent one.

(15) The buses have ceased running.
(16) The buses have ceased to run.   *(Dirven 1989)*

Fanego draws attention to the fact that this distinction does not hold in all cases either since *-ing* can also express the permanent cessation of the occurrence in question as, for example, in Sentence (17). Egan also provides examples of cases where *cease + ing* expresses the definitive cessation of the occurrence expressed by the complement (18).

(17) (..) Last Friday the big island's second largest sugar plantation, Mauna Kea Agribusiness, announced that it would cease farming sugarcane. Beginning in November, nearly 9,000 acres of caneland will be converted to other agricultural uses. One third of the land producing sugarcane 20 years ago is no longer being cultivated today.   *(FLOB) (Fanego 2004)*

(18) They had just ceased being lovers with no explanation or recriminations from either side being voiced.   *(Egan 2003)*

Another difference mentioned with respect to the two constructions is related to agentivity: the difference between *cease + to infinitive* and *cease + ing* is seen as between agentive (*cease + ing*) and non-agentive reading (*cease + to infinitive*) (Egan 2003). Egan states that while *cease + ing* seems to be marked for agentivity, *cease + to infinitive* is not. He defines the meaning of the *cease + to infinitive* construction as expressing that "a certain situation had pertained for some time at time x: at point y (y>x) this was no longer the case" (Egan. 224). As compared with *cease + to infinitive*, the *cease + ing* construction is

defined to express that "somebody was doing something at point x: at point y (y>x) this was no longer the case" (Egan. 224). This means that while *cease + ing* is very often associated with agentivity, this is not so in the case of *cease + to infinitive*, which frequently appears with non-agentive subjects.

Egan also gives statistical evidence of the prevalence of agentivity within the *cease + ing* construction as compared to *cease + to infinitive* (*Table 25*). As this table shows, the number of agentives is more numerous in the case of *cease + ing* than in the case of *cease + to infinitive*: in the case of *cease + to infinitive*, out of 268 animate subjects, only 120 have been found as agentive; however, in the case of *cease + ing*, out of 59 total animate subjects, 55 are agentive.

Table 25. Person, animacy, and agentivity of *cease + to infinitive* and *cease + ing* (based on the data by Egan 2003)

		Cease + to inf.	Cease + ing
1st person	ag.	11 (2.0%)	1 (1.5%)
	non-ag.	9 (1.6%)	0
2nd person	ag.	4 (0.7%)	0
	non-ag.	9 (1.6%)	0
3rd pers. anim.	ag.	105 (18.6%)	54 (80.6%)
	non-ag.	130 (23.1%)	4 (6.0%)
3rd pers. inanim.		295 (52.4%)	8 (11.9%)
Total anim.		268 (47.6%)	59 (88.1%)
Total agent.		120 (21.3%)	55 (82.1%)
Tot.		563	67

An interesting explanation of the semantics of the *to infinitive* and *-ing* construction after *cease* is given by Duffley (2006). Although Duffley defines the meaning of the *to infinitive* and *-ing* after *cease* in non-temporal terms, his observations, regarding especially *cease + to infinitive*, are interesting and will also be partially followed here.

According to Duffley, the function of the *to infinitive* construction after *cease* is that of a goal-circumstantial. He contends that the function of the *to infinitive* in this case is to put the focus on the state of affairs that ensues upon cessation. As a consequence, cessation within the *cease + to infinitive* construction is seen as a transition into a new state (Duffley. 121). The *cease + ing* construction is defined to have a different value from *cease + to infinitive*; it shifts the focus back from the state of affairs ensuing upon cessation to the event which has been terminated.

8.3. The schematic meaning of *cease + to infinitive* and *cease + ing*

Just like in the case of the other aspectualizers, the schematic meaning of the *cease + to infinitive* and *cease + ing* constructions will be interpreted with respect to viewing. In the case of *cease + to infinitive*, the cessation of the occurrence expressed by the complement is viewed from the exterior. This construction focuses on the change (the cessation and the coming into being of a new state) that the subject is going through rather than on the state, activity, or event expressed by the complement. Focus is laid on the process that leads to the cessation of the event; this also marks the coming into being of a new state of affairs. The construction is assumed to express both the movement to the cessation of the event expressed by the complement and the coming into being of a new state. In Sentence (19), for example, the *cease + to infinitive* construction profiles not only the process that is ended but also the situation resulting from it.

(19) The following shall cease to have effect as from the date of entry into force of the present Agreement: The Supplementary Commercial Agreement of 21st December, 1938, in so far as it has not already by virtue of the Commercial Agreement of 13th August, 1949, ceased to have effect.   *(BNC)*

In the case of the *cease + ing* construction, the occurrence expressed by the complement verb is viewed from within. Different form the *cease + to infinitive* construction – where it is the movement leading to cessation and the coming into being of a new state that are in focus –, within the *cease + ing* construction, focus is laid on the occurrence itself which then ceases to exist or function. Expressing a viewpoint from within, the *cease + ing* construction profiles a part of the complement verb (its coda), which is characteristic of the entire occurrence. Neither the movement leading up until the moment of cessation nor the coming into being of a new state is put into profile.

8.4. The prototypical meaning of *cease + to infinitive* and *cease + ing*

The prototypical meaning of the constructions results from the integration of the meaning of *cease* with the meaning of *to infinitive* and *-ing*. Concerning the *cease + to infinitive*, this construction seems to be different both from *begin + to infinitive*, *start + to infinitive*, and *continue + to infinitive* in the sense that, unlike the latter constructions, *cease + to infinitive* does not seem to have a future value. Fanego (2004) contends that the *to infinitive* construction within

cease + to infinitive cannot be considered future with respect to the moment of cessation (*cease* is a backward-looking and not a forward-looking construction; *to* does express the movement towards the cessation of the complement verb, but this is not future with respect to the moment of cessation). Contrary to this interpretation, the *cease + to infinitive* construction will be understood to express future orientation, presupposing the coming into being of a new state, which is future with respect to the moment of cessation. Within this construction, the coming into being of a new state is as important to the meaning of the construction as the cessation of the occurrence expressed by the complement verb.

Due partly to its profile (path–goal schema), the *to infinitive* is assumed to acquire a future value after it gets embedded into the construction as a whole, so that both the cessation and the coming into being of a new state is implied and put into profile. This results in a reading where not only the movement leading to cessation but the coming into being of a new state is also expected.

As it will be shown below, the *cease + to infinitive* construction mostly favours state verbs expressing the cessation of a particular state of affairs and the coming into being of a new one. When the construction contains a state verb, the cessation is very often a gradual one; in case the complement verb is an activity verb as in sentences (20–21), the construction can receive a more dynamic interpretation.

(20) Those on the left who have dared not to act in moderation --; the Hattons, Grants and Livingstones --; have been violently pilloried, whilst their counterparts on the right -; the Tebbits, the Brittans --; have usually been seen as pioneers of reform. A longer-term effect may be that the national press will cease to act as a focus of left-wing radicalism and political challenge to established processes.   *(BNC)*

(21) Application for an extension of time to apply to set aside a statutory demand can be made to a bankruptcy judge in the High Court or to a registrar of the appropriate county court. As from the time the application to set aside is made, the time limited for compliance ceases to run.   *(BNC)*

Unlike the *cease + to infinitive* construction which expresses the cessation of both a series of occurrences happening at several times and the cessation of a single occurrence, *cease + ing* usually expresses the cessation of an ongoing occurrence or a series of occurrences (a series of occurrences in Sentence 22)):

(22) Sony Ericsson will cease making CDMA handsets for the North American market, and shed 500 jobs in an attempt to swing into profit.
(Webcorp/ http://www.highbeam.com/doc/1G1-108312223.html)

Another important feature of *cease + ing* is duration. The construction profiles an ongoing occurrence that is durative (*cease + ing* mostly occurs with durative activity verbs); owing to the ongoing and durative character of the *-ing* construction, the complement verb needs to be a durative one in order to be part of the construction.

The *cease + ing* construction does not have a future value as does *cease + to infinitive* since the coming into being of a new state is not profiled in this case. The interaction of the schematic and prototypical meaning of the *cease + ing* construction leads to the interpretation of the construction as expressing the interior viewpoint of an ongoing occurrence that lasts until the moment of cessation.

8.5. The eventuality type of the complement verb

An important aim of the analysis of the *cease + to infinitive* and *cease + ing* constructions has been to see what eventuality types these constructions appear with. As noted by Freed (1979) and also by the Webster's New World Dictionary (1989), *cease* expresses the cessation of a condition or of an existence. In these interpretations, *cease* is defined as containing in its meaning the cessation of a state expressing existence or a condition.

As it will be assumed here, expressing the cessation of an existence or condition is a property of the construction as a whole. Although the *cease + ing* construction can also express the cessation of an existence, this tends to concern the *cease + to infinitive* construction, as a result of the interaction between *cease* and the *to infinitive*; the change from one state of affairs to another is often gradual, expressing the gradual cessation of one existence and the emergence of a new one. As tables 26 and also 27 illustrate, 'be' seems to be the most frequent verb within the *cease + to infinitive* constructions; 'exist' and 'have' are also quite numerous within this construction. Thus, the queries in BNC yielded 473 matches for *cease + to infinitive*; the three constructions, *cease to be*, *cease to exist*, and *ceased to have* amounted to more than half of the findings (291 entries (61.5%) and the case with *ceases + to infinitive* is similar (out of 235 entries, the three constructions gave 150 matches) (63.8%), while *ceased + to infinitive* yielded 472 matches out of 795 entries (59.3%) (examples for *cease to be*, *cease to exist*, and *ceased to have* are sentences 20, 21, and 22).

Table 26. The occurrence of 'be', 'exist', and 'have' within *cease + to infinitive* (source: findings from ICAME corpus collection)

		BE	EXIST	HAVE
Cease to	30 entries	8 entries	1	2
Ceases to	14 entries	8 entries	0	2
Ceased to	48 entries	11	2	2

Table 27. The occurrence of 'be', 'exist', and 'have' within *cease + to infinitive.* Findings from BNC

		BE	EXIST	HAVE
Cease to	473 entries	190	63	38
Ceases to	235 entries	125	13	12
Ceased to	795 entries	336	113	23

The occurrence of other state verbs, e.g. cognitive verbs like 'believe', emotive verbs like 'feel', 'love', 'like' also appear within the construction, although in a much more reduced number (ICAME findings show five matches for *cease to feel)* (sentences (23) and (24) with *cease to believe* and *cease to love*).

(23) In those few hours from noon to midnight of that August day that had been so filled with the Unusual, she had never ceased to believe in the Usual, in the day-to-day life she had enjoyed for many years. (LOB)

(24) This is the normal way of gradually and painfully realising fully that a loved companion has gone, never to return: recognising what has happened and letting them go. Not rejecting them, not ceasing to love them, but slowly building up a new role and identity which no longer depends upon their presence for its satisfactory functioning. (BNC)

Apart from the cases when the *cease + to infinitive* construction contains state verbs and where the subject is an experiencer or a patient, this construction also appears with activity verbs. Although activity verbs often require an acting agent as their subject within the *cease + to infinitive* construction, the subject, instead of being an agent, often behaves like an experiencer or a patient, as is also the case in Sentence (25).

(25) If we unplug a TV set from the mains electricity, it ceases to function. But I can not then say that the real source of electricity is the socket upon the wall. (BNC)

Unlike the *cease + to infinitive* construction, *cease + ing* tends to appear frequently with acting agents. So long as the subject is an acting agent, it is expected to appear within the *cease + ing* rather than within the *cease + to infinitive* construction (Sentence 26).

(26) (...) *When the clock has been destroyed, the rest of the objects in the room cease attacking at once. When the adventurers have finished with the clock, this chamber will probably be a complete shambles.*   (BNC)

Although the *cease + ing* construction also appears with state verbs,[2] statives seem to appear more frequently within the *cease + to infinitive* construction; *Table 28* shows the frequency of the verbs 'be', 'exist', and 'have' within the *cease + ing*.

Table 28. The occurrence of 'be', 'exist', and 'have' within *cease + to infinitive* and *cease + ing*. Webcorp findings

	to be / being	to exist / existing	to have / having
Cease	252 / 262	206 / 151	538 / 147
Ceases	338 / 0	286 / 0	206 / 0
Ceased	337 / 0	258 / 0	0 / 0

By contrast, activity verbs like 'make', 'do', or 'run' show an increase within the *cease + ing* construction (*Table 29*). *Table 30* gives an overview of the occurrence of eventuality types within the *cease + to infinitive* and *cease + ing* constructions.

Table 29. 'Make', 'do', and 'run' within *cease + to infinitive* and *cease + ing*

	to make / making	to do /doing	to run / running
Cease	149 / 140	170 / 168	165 / 140
Ceases	146 / 129	143 / 126	154 / 107
Ceased	154 / 142	153 / 156	168 / 155

(source: Webcorp)

Findings from ICAME yielded 5 matches for the *cease + ing* construction; the complement verb is an activity verb like 'farming' and 'going'. While *ceases + ing* produced no entries, *ceased + ing* gave 5 entries; the complement verb is an activity verb in most cases, requiring an acting agent (e.g. 'weeping', 'farming', 'trading', 'talking') (Sentence 27).

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2   Tregidgo (1980) states that *cease + ing* does not appear with states; so, with states, only *cease + to infinitive* is possible. Although this construction can appear with statives as Sentence (29) also shows, Tregidgo's observation confirms the reduced occurrence of statives within this construction.

Table 30. The most frequent verbs within *cease(d) + to infinitive* and *cease(d) + ing*

Cease to (464)	Ceased to (701)	Cease + ing (96)	Ceased +ing (105)
Be (190)	Be (336)	Trade (14)	Trade (33)
Exist (63)	Exist (113)	Be (8)	Be (5)
Have (38)	Have (23)	Use (7)	Operate (4)
Apply (21)	Function (17)	Feed (5)	Work (3)
Function (10)	Believe (7)	Make (4)	Carry (2)
Amaze (6)	Operate (7)	Fight (3)	Provide (2)
Use (5)	Make (6)	Attack (2)	Struggle (2)
Act (5)	Hold (6)	Brew (2)	Talk (2)
Do (4)	Amaze (6)	Childbear (2)	Swing (2)
Believe (4)	Play (6)	Defend (2)	Use (2)

(source: BNC corpus findings)

(27) The marine, hands on cheeks, rolled by his unwounded side onto his stomach. He ceased weeping. (…) The marine was still. He would soon die.
(BROWN)

Similar is the case with the findings from the BNC corpus: *cease + ing* turned 85 results, *ceases + ing*: 4 matches, *ceased + ing*: 96 matches. The verbs are mostly agentive verbs such as 'trading', 'using', 'feeding', 'making', 'operating', 'working', etc.

Even in cases when the *cease + ing* construction appears with state verbs the subject tends to have an agentive interpretation. Examples of this are sentences (28–29); in both of these cases, the subject behaves like an acting agent; in (28), 'cease being a pawn' can be paraphrased as 'acting like a pawn'; in Sentence (29), the construction refers to the people that should behave in a certain way.

(28) How, you may ask, can you cease being a pawn? Firstly, as you perceive your old fears welling up within you, as you try to tackle the same old problem and are paralysed by the thought of failure, look at the screen of your mind.
(BNC)

(29) With increasing concern for social problems as opposed to individual "sins" came an increasing amount of "social work" as opposed to individual acts of charity. The temptation was that the churches' social work, begun as a way to win the unchurched as well as to help them physically, would cease being the means and instead become the end. The justification for doing the work might be seen to lie in the material benefits it produced. *(BNC)*

STOP, QUIT, AND THEIR COMPLEMENTATION

9.1. The semantics of *stop* and *quit*

Stop and *quit* are very close in meaning, also shown by their similar syntactic distribution. Both *stop* and *quit* appear with sentential complements under the form of *V-ing* (Sentence (1), but they do not allow for *to infinitive* complements (Sentence 2).

> *(1) He stopped / quit worrying about the problem.*
> *(2) * He stopped /* quit to worry about the problem.   (Freed 1979)*

Freed (1979) believes the similarity between *stop* and *quit* is due to the fact that these aspectual verbs have the same presupposition: both *stop* and *quit* presuppose that the action is in progress before we stop or quit doing it. Thus, Sentence (3), including both *stop* and *quit*, has as a presupposition Sentence (4).

> *(3) As the state's scare tactics became progressively more outrageous, we simply stopped / quit worrying about being fired.*
> *(4) We were worrying about being fired before (or until) the state's scare tactics became outrageous.   (Freed 1979)*

Although the two verbs have the same presupposition, they have different consequence relations. While the sentence with *stop* implies that the event named in its complement is over but might be resumed, with *quit*, the sentence expresses that the event is completely over. From this, it results that, depending on whether it is *stop* or *quit* used in the sentence, the consequence relations are different: for *stop*, it is Sentence (5), for *quit*, sentence (6):

> *(5) For a certain amount of time we were worrying about being fired.*
> *(6) We were no longer worrying about being fired.   (Freed 1979)*

That is, although both verbs tend to express a sudden end of the event expressed by the complement (Dixon 2005, Wierzbicka 1988; sentences (7) and (8)), with *stop*, the ending of the event is temporary, while with *quit*, however, the event is completely over. Sentence (7) points to a possible resumption of

the event of the complement verb – Sentence (8), by contrast, implies definite cessation with *quit*:

(7) We stopped discussing the case until some new information could be obtained.   *(Freed 1979)*

(8) Eileen really would have to settle down to love, honor and obey, and she'd have to quit drinking.   *(Duffley 2006)*

Quit tends to express the cessation of habitual occurrences; in the example given by Freed, *quit* indeed expresses the cessation of a habit (that of eating peanut butter in Sentence (9)); the same situation with a one-time occurrence interpretation would result in a strange sentence. Sentence (10) is awkward since eating can only be imagined to be stopped temporarily in this case:

(9) Chantal quit eating peanut butter when she went back to France.
(10) ?Chantal quit eating peanut butter when the phone rang.
                                                                                    (Freed 1979)

Duffley (2006) agrees with the observation that *quit* tends to express the end of a habitual event but also notes that the cessation expressed by *quit* need not necessarily be that of a habitual occurrence. He gives examples of *quit* referring to the cessation of a single time occurrence (Sentence 11):

(11) Leaning forward in her chair Gran nearsightedly scrutinized Dan's face. 'How's Sally like rubbin'agin that thar little ticklebursh ye're a-raising?
'Quit ragging him, Gran', Rod protested. 'I ain't raggin him!' Gran peered again at the week-old blond mustache shadowing Dan's upper lip.
                                                                                    (Duffley 2006)

Other differences between *stop* and *quit* are revealed with respect to intentionality and causality. Despite the fact that both *stop* and *quit* can express intentionality (Brinton 1991, Wierzbicka 1988), this seems to be more characteristic of *quit* than of *stop*. *Quit* (more often than *stop*) requires that its subject be an animate, agentive subject. This may explain the ungrammaticality of sentences (13) and (15); in these sentences, the subjects are inanimate. *Stop*, on the other hand, can appear with both animate and inanimate subjects (consider sentences (12) and (14)):

(12) John stopped / quit liking rock music.   *(Brinton 1991)*
*(13) * The sun quit shining.*
(14) The sun stopped shining.
(15) The water quit dripping.*   *(Freed 1979)*

That *quit* does not appear with inanimate subjects may be explained by the fact that *quit* often expresses the cessation of one's involvement or participation in some activity. This is also the case in contexts where *quit* is not an aspectualizer – consider Sentence (16).

(16) You are a cheater! I quit!   *(Freed 1979)*

Related to intentionality, Wierzbicka (1988. 81) notes that due to its implication of suddenness *stop* often leads to volitional interpretation. This also applies to Sentence (17), which, in opposition to Sentence (18), can be understood to express intentionality:

(17) He stopped breathing.
(18) He ceased to breathe.   *(Wierzbicka 1988)*

Egan (2003) holds Wierzbicka's interpretation plausible, stating that the intentional reading is mostly attributable to the *stop + ing* construction. Egan considers that even in the case when *stop + in*g appears with an inanimate subject (which he does not include in the category of agentive subjects) this construction often acquires an agentive meaning. The subject in Sentence (19) refers to the people that fire their guns, and so is agentive in nature.

(19) The German rifles stopped firing and Byrne, who had picked up some words of German, heard a command to evacuate the tunnel.   *(Egan 2003)*

Stop and *quit* are also different with respect to causality. *Stop* is considered a causal verb, also shown by the possibility of *stop* to appear in causal constructions. Sentence (20) and its paraphrase (21) show the occurrence of *stop* in causative constructions, Sentence (23) the possibility of middle constructions with stop, and Sentence (24) is a possible paraphrase of the sentences (22–23).

(20) The police were ordered to stop jaywalking.
(21) The police were ordered to cause jaywalking to stop.

(Newmeyer 1975)

(22) The water stopped dripping.
(23) The dripping of the water stopped.
(24) Someone (or something) stopped the water's dripping.   *(Freed 1979)*

Contrary to *stop, quit* is not marked for causation; that is, *quit* cannot appear in middle constructions as *stop* does; also, while *stop* allows for different subjects in the main and subordinate clause, this is not possible for *quit* (25–26):

(25) Bill stopped Mary cleaning her room.
(26) * Bill quit Mary cleaning her room.   *(Hindsill 2007)*

9.2. The complementation of *stop* and *quit*

The fact that both *stop* and *quit* appear with *-ing* complement but disallow *to infinitives* will be interpreted as partly due to the semantic values of *stop* and *quit*. As they are backward-looking constructions (Egan considers *stop* a backward-looking construction, where either the Sp (the speaker) or the S (subject) profiles the activity as occurring before the time of the matrix verb; *quit* can also be considered a backward-looking construction), they focus on the activity that comes to a sudden close. Both in the case of *stop + ing* and *quit + ing*, focus is laid on the cessation of the activity (on its nucleus phase) expressed by the complement (without consideration or focus on a further occurrence of the complement verb). A particularity of the *stop + ing* construction, according to Egan (2003), is that this construction often makes an inherent point of reference to the actual point of cessation, as is the case in Sentence (27):

(27) I've stopped smoking now for four months.   *(Egan 2003)*

Although *stop* may also express a possible resumption of the activity expressed by the complement (Freed 1979), *stop + ing* does not express an orientation towards the realization of the complement verb; in case the activity is resumed, a further context is necessary which points to the further realization of the activity. Sentence (28), due to the presence of the adverbial ('between 10 and 15 times a day'), results in an iterative reading:

(28) The remaining tumour is benign but the damage to her brain is still causing her to stop breathing between 10 and 15 times a day.   *(Egan 2003)*

Both *stop + ing* and *quit + ing* express an internal view of the activity expressed by the complement. Their non-appearance with *to infinitives* can be explained by the clash that exists between the semantics of *stop* and *quit*, on the one hand (expressing a sudden, often unpredictable change, which excludes further expectation of continuation (Wierzbicka 1988)) and, on the other hand, by the semantics of the *to infinitive* construction, which is understood to express the orientation towards the further realization of the event. Although *stop* appears with *to infinitives*, the *stop + to infinitive* construction expresses an adverbial of purpose so that in these cases *stop* is not an aspectualizer. In the case of *quit + ing* and *stop + ing*, there is often no simultaneity between the temporal phase of the aspectual verb (*quit* and *stop*) and that of the complement (*-ing*)

construction. Although the right boundaries of the two constructions coincide, in most cases, the left boundary of the complement constructions precedes that of *stop* and *quit*. This is all the more so since *stop* and *quit* can be considered as instantaneous (being themselves achievement verbs (Dowty 1979)).

Hindsill (2007) argues that in the case of aspectualizers simultaneity exists only when the respective aspectualizer is a raising verb and where the subject of the matrix verb is coidentified with the subject of the complement construction. An example of this is (29), where indeed the right boundaries of the two constructions coincide.

(29) Mary stopped cleaning her room.   *(Hindsill 2007)*

According to Hindsill, when the aspectualizers are control verbs instead of raising verbs, the two constructions may not show simultaneity at all. This is especially the case with *stop*, which may also appear in the *stop from -ing* construction. The sentences below can be attributed a different interpretation: while Sentence (30) implies simultaneity, since singing is still going on at the time of cessation, in (31), there is no simultaneity between the two clauses (singing does not take place since Kim prevents that from happening).

(30) Robbin stopped Kim singing 'Advance Australian Fair'.
(31) Robbin stopped Kim from singing 'Advance Australian Fair'.
                                                         (Hindsill 2007)

Furthermore, the *stop + ing* construction can refer both to continuous situations (32) and to situations repeated on single occurrences (33):

(32) Certainly neither the KGB nor the GRU are going to stop spying for that would leave them as exposed to criticism as if the CIA suddenly stopped spying on Russia.   *(Egan 2003)*

(33) So the driver started to curse at both of them as if they had been in a plot together to ruin his safe-driving record. Then the man he saved turned and looked squarely into the truck driver's face, without saying a word. Very suddenly, the driver stopped swearing at them, turned on his heel and went back to his truck.   *(BROWN)*

As noted before, *quit + ing* tends to express the cessation of a habitual activity (Sentence 34). Yet, it can also express the cessation of a single occurrence; in Sentence (35), the *quit + ing* construction refers to a single occasion.

(34) You hunt any?' Used to. But I quit shooting the birds.   *(FROWN)*

(35) He kissed her hand. "Matthew, what do you want from me?" "You saved my life." "So say thank you and leave." "I prefer the oriental tradition." "Which is?" she asked nervously. His tongue tickled at her hand. "To give my life to the one who saved it". "Oh, really?" She wished he'd quit doing that to her hand; but she didn't want to move it in case he moved on to her lips."

(BNC)

9.3. The eventuality types of *stop + ing* and *quit + ing*

The *stop + ing* construction usually appears with activity verbs. *Table 31* illustrates the most frequent eventuality types within the *stop + ing* construction. As the table shows, *stop + ing* mostly takes activity verbs with an acting agent. Besides activities, *stop* also takes accomplishments as its complement. If *stop* appears with accomplishments, it leads to different entailment relations from the entailment in the case of activity verbs. That is, while Sentence (36) with the activity verb 'walk' implies that John did walk, Sentence (37) with the accomplishment phrase 'paint the picture' does not imply that John painted the picture (Dowty 1979).

(36) John stopped walking.
(37) John stopped painting the picture.   *(Dowty 1979)*

Table 31. The most frequent verbs with *stop + ing*, *stopped + ing*, and *quit + ing* (data based on findings from BNC)

'Stop + ing' (1,431)	'Stopped + ing' (1,049)	'Quit + ing' (37)
Talk (100)	Talk (78)	Smoke (6)
Use (64)	Be (67)	Play (3)
Work (60)	Work (51)	Drink (3)
Play (57)	Speak (50)	Booze (2)
Think (50)	Breathe (49)	Act (2)
Laugh (46)	Cry (47)	Call (2)
Try (41)	Play (38)	Talk (2)
Look (39)	Go (34)	Try (20
Take (38)	Take (32)	Trip (1)
Make (36)	Smoke (30)	Train (1)

The appearance of states and achievements within the *stop + ing* construction is more restricted. This is especially true for achievement verbs due to their instantaneous character; no single occurrence of achievement has been found within the *stop + ing* construction in the ICAME (Brown, Frown,

Flob, Lob) corpora and BNC (consider also the ungrammaticality of Sentence (38)). When achievements do appear as complements of *stop*, they tend to be recategorized as series (Sentence 39).

*(38) * His students stopped realizing what he meant.*
(39) As Chou's health deteriorated, he stopped recognizing people.
                                                              (Freed 1979)

Concerning the occurrence of state verbs in the *stop + ing* construction, the findings (ICAME findings and BNC) contain such state verbs as 'love' (stopped loving – 21 entries), 'have' (stop having – 20 entries), or 'feel' (stopped feeling – 7 entries) (example of stop loving and stop having are sentences (40–41)).

(40) Fortunately for us readers, Dennis has never stopped loving climbing. His second venture into self-mythography is every bit as entertaining as the first, and has the added spice of political and personal deep texture. Mountain Lover is one of the most intriguing (in several senses of the word) books I've read about the global climbing village.   *(BNC)*

(41) He points out that in 1960 married black women could have expected to have 3.49 children; if they had continued to reproduce at this rate, the out-of-wedlock rate among black women would have increased from 23% in 1960 to just 29% in 1987, and gone almost unnoticed. Instead, black married women stopped having so many children.   *(BNC)*

Often, when complements of *stop* are state verbs, they tend to be recategorized as activities, as is the case in sentences (42–43):

(42) Marjorie, you must stop seeing things in terms of --; like a play! Such subtleties are hardly within her grasp. She was selected most carefully, you know. Most carefully indeed. She has a job to do, and she's doing it quite well. And that's as far as it goes.   *(BNC)*

(43) Telling himself to stop being stupid, he settled back and concentrated instead on his fellow passenger. In the opposite corner was a portly man in a baggy tweed suit. His shiny brown shoes had fine cracks in them, like an old oil painting, and the expanse of leg showing above the left sock was pale and hairless.   *(BNC)*

As distinct from *stop + ing*, the *quit + ing* construction rarely appears with state verbs. The only example of *quit + ing* containing a state verb is the fragment below, found in BNC:

(44) *Cher ignored Sonny's attempt to apologise for their years of bickering. Sonny, who is mayor of Palm Springs in California, said: "I shouted out to her but she walked past without even looking. "I think you could consider that a brush-off." The battling couple have frequently traded insults in books and through magazine interviews. Sonny said: "She has to quit living in the past'.*

(BNC)

The *quit + ing* construction does not appear with achievement verbs either; achievements can appear as part of the *quit + ing* construction only when they are recategorized as series (sentences 45–46).

The most frequent occurrence of *quit + ing* construction is also with activities (Sentence 47). As *Table 31* shows, the most frequent event types within this construction are activity verbs with an acting agent.

(45) * *His students quit realizing what he meant.*   (Freed 1979)

(46) *John M&Dalton, himself a lawyer and a man of long service in government, spoke with rich background and experience when he said in an address here that lawyers ought to quit sitting in the Missouri General Assembly, or quit accepting fees from individuals and corporations who have controversies with or axes to grind with the government and who are retained, not because of their legal talents, but because of their government influence.*

(BNC)

(47) *Sometimes I wish we could just get out of here, you know. Start again somewhere else. I might quit teaching.*   (FROWN)

There seems to be a slight difference between *stop + ing* and *quit + ing* when they appear with activities. Thus, while *quit + ing* tends to express the cessation of a habitual activity (the most frequent verbs are *smoking*, *drinking*, *boozing*, etc.), *stop + ing* rather expresses the end of a single ongoing occurrence (activity).

In conclusion, it can be said that although very close in meaning, the two constructions are slightly different – also shown by the subtle differences in their syntactic distribution (their appearance with event types). The difference between the two constructions lies mainly in the presence vs. lack of intentionality, permanent vs. temporary cessation and also habituality.

FINISH, END, COMPLETE, AND THEIR COMPLEMENTATION

10.1. The semantic value of *finish* and *end*

This part of the paper focuses on the comparison between *end* and *finish*. Additionally, *finish* and *complete* will also be compared. Despite the similarities they share (they all express the coming to an end of an event / occurrence), the syntactic distribution of these aspectualizers point to some subtle differences between them. *End* and *complete* mostly appear with nominalizations (they rarely allow for sentential complements); *finish*, by contrast, often appears with both nominals and sentential complements (1–2):

> *(1) They finished their conversation / having their conversation.*
> *(2) They ended their conversation /* having their conversation.*
> <div align="right">*(Freed 1979)*</div>

In Freed's interpretation, *finish* and *end* are different since, although they share the same presupposition (a prior event that has been brought to a close), they have different consequences. Thus, sentences (4) and (5) have different consequence relations. Sentence (3) with *end* implies that the event is over but not necessarily completed; (4) with *finish* that the event is both over and completed. According to Duffley (2006. 101), *finish* implies that "what one set out to do is done" and also "it connotes the completion of the final phase of the event in a process of elaboration."

> *(3) They ended the discussion.*
> *(4) They finished the discussion.* *(Freed 1979)*

This difference between *end* and *finish* can be explained by the fact that they have different relationships in relation to the temporal structure of the event: unlike *end,* which refers to the last temporal segment of the nucleus, *finish* refers to the coda of the event named in the complement. As *finish* refers to the coda of the event, it can refer not only to the temporality of the event but also to the completion of the event itself (in Sentence 3, it is the event

of discussion that is completed); on the contrary, in sentences with *end*, it is usually the time of the discussion that is brought to a close.

Dixon (2005) also notes that *finish* implies the complete termination of the complement event; according to Dixon, this might be explained by the fact that *finish* expresses object orientation. That is, in Sentence (5), the event is seen as terminated since the wall is painted entirely:

> *(5) John finished (painting) the wall on Tuesday.*   *(Dixon 2005)*

An important difference between *end* and *finish* is with respect to intentionality, more specifically, the involvement of the subject in the event of the sentence (Freed 1979). *End* and *finish* in sentences (6–7) lead to different interpretations of the events expressed in the complement:

> *(6) They ended Peter's and Mary's argument.*
> *(7) They finished Peter's and Mary's argument.*   *(Freed 1979)*

Sentence (6) has the interpretation that they put and end to Peter's and Mary's argument without taking part in it (caused the argument to end); on the other hand, Sentence (7) has as a consequence that they took part actively in the argument (the subjects have participated in the argument).

Freed (1979) points out that *finish* requires the subject to have some role in the completion of the event (be agentive); this may explain why Example (8) with an inanimate subject results as ungrammatical. In sentences (9) and (10), the subjects can be considered to take part in the completion of the event; in Sentence (9), the subject is an acting agent; similar is the case in Sentence (10), where, although in a more restricted sense, the subject may also be considered to contribute to the termination of the event (this makes (10) grammatical). Another example is Sentence (11); this sentence, although it contains an inanimate subject, receives an agentive interpretation (the subject takes an active part in cooking).

> *(8) * Her teeth finished decaying.*
> *(9) He finished his work and went home.*
> *(10) The leaves finished falling last week.*   *(Freed 1979)*

> *(11) She looked around her appreciatively. "You've done a lot since I was last here." "Oh, not really. Just put up a few pictures and so on. I suppose I ought to organise some curtains, but I never shut them so it's hardly a priority. I'm not exactly overlooked." He walked round the end of the units and held out his hand. "Come and sit down for a minute while the lasagne finishes cooking." He sat on the settee and tugged her down beside him, leaning over and sniffing her hair.*   *(BNC)*

As distinct from *finish* (which has a more restricted use with inanimate subjects), *end* occurs freely with inanimate subjects; sentences with *end* have a causative reading very often, leaving the active participation of the subject in the prior-occurrence of the event unspecified. Examples of this are (12a) and (12b), which have a causative reading, without the agent of the event being specified. Sentences (13a) and (13b) show that *finish* does not allow for constructions where the subject is inanimate and does not have any agentive role. *Finish* does not seem either to imply causality as *end* does. This is also shown by the fact that *finish* does not appear with 'accidentally' or 'purposely' – consider sentence (14):

> *(12a) The war ended. /   (12b) The program ended. (Someone caused*
> *   the war and the program to end.)*
> *(13a) * The war finished. / (13b) * The program finished.*
> *(14) He *accidentally / purposely finished the conversation.*
>
> *(Freed 1979)*

In some cases, the meanings of *end* and *finish* are very close (in Sentence (15), no obvious difference can be detected between the use of *end* and *finish* since both verbs have the same consequence – the letter is written); according to Freed, this is due to the aspectual nature of the object (nouns expressing spatial and temporal beginnings and endings).

> *(15) He ended / finished the letter.*   *(Freed 1979)*

Being an achievement itself, *finish* often expresses the shift of an event (e.g. an accomplishment) to an achievement reading; in such cases, the event in question is seen as an instantaneous one (Piñon 2006, Dowty 1979, Pustejovsky and Bouillon 1996). An example of this is Sentence (16), where 'buying the book' coincides with 'Rebecca's signing her name; and can be considered as instantaneous. In such cases, the temporal phase of *finish* overlaps the temporal phase of the complement construction since the event that has come to an end is seen as momentary.

> *(16) Technically, Rebecca bought the book only when she finished signing*
> *her name on the credit card slip.*   *(Piñon 2006)*

The event that appears as a complement of *finish* is often seen as a progressive one so that the cessation can be understood to be of a particular ongoing event (Givón 1993); (Sentence (17) can be seen as a single occurrence that lasts for some time; Sentence (18) would also sound strange in a habitual interpretation – it is rather to be understood as a single occurrence than a habitual one).

(17) She finished reading her book (she was reading it, then she finished).
(18) She finished reading comic books (she was reading some, then she finished) (she used to read them, then she quit).*   *(Givón 1993)*

Although more rarely, *finish* can also express the end of a more repetitive or habitual event; in Sentence (19), making movies is seen as a habitual occurrence taking place at different times; in this sentence, the use of *finish* is acceptable since her making movies can be interpreted as implying a certain goal or result state (the number of films that are produced).

(19) A League of Their Own is left heartbroken when she finishes making movies … because she keeps falling in love with her leading men. Stunning Laura, who shot to fame alongside Patrick Swayze in Point Break and Robin Williams in Cadillac Man, admits: "I'm forever falling in love with my co-stars. But they're always married or spoken for.   *(BNC)*

10.2. *Finish* and *complete* compared

In what follows, *complete* will be compared with *finish*; this is mainly because the two aspectualizers are very close in meaning. Just like *finish*, *complete* also presupposes that the event in question was in progress and finally came to an end (the consequence). Sentences (20–21) have the same presupposition (that the event was going on before) and also the same consequence (the event is finished and also completed).

(20) They finished the project in time.
(21) They completed the project in time.   *(Freed 1979)*

Sentences (22–23) show that despite the similarities between them *finish* and *complete* may express slightly different aspectual meanings:

(22) He finished / completed the lesson 5 minutes early.
(23) He finished / completed 5 minutes early.*   *(Freed 1979)*

While (22) is correct with both *finish* and *complete*, the lack of the direct object in (23) with *complete* is not felicitous. The ungrammaticality of this sentence can be accounted for if we realize that, unlike *finish*, *complete* has a non-temporal reading in addition to its temporal one. In other words, *complete* is not a temporal aspectualizer in all contexts, but may refer to the physical part carried out in an event (Freed 1979). Because of its dual character, *complete* requires that the object which is completed be present in the sentence.

That *complete* has an additional non-temporal reading is also shown by examples (24) and (25); both sentences lack a temporal reading, and as such only the use of *complete* is acceptable:

(24) The transaction completed the deal.
*(25) * The transaction finished the deal.*   *(Freed 1979)*

10.3. The complementation of egressive aspectualizers

Sentences (26–29) show that both *end* and *complete* take sentential complements (despite the fact that their most frequent occurrence is with nominals). In the examples below, the complement constructions can be understood to be part of a larger event (especially in the case of (28), where 'filming' refers to shooting a particular film, and also in (29) where 'writing the remarks' is part of a study on secular and domestic architecture).

(26) By the time they reached Letterkenny, they were thirsty, so had a drink, and by the time they reached the shore road between Ray and Drumhallagh could not have pinpointed the cottage in the wood with any certainty to save their lives. They ended sitting high above the lough sipping from a bottle of John Powers, gazing at the lights of a house below them that could have been anybody's. "I tell you what," said Mallachy.   *(BNC)*

(27) He continued: "When I turned round my brother was pointing a gun at me --; then he shot me. I was hit on the right leg and nearly fell. "When I managed to get upright I saw him cocking the gun again, thought he was going to shoot me again and moved towards him to defend myself." He had ended lying on the ground with the accused sitting on his chest.   *(BNC)*

(28) (..) I would anticipate that we can film the whole sequence within half an hour and that we would make every effort not to disrupt the normal running of your business. Ideally, we would like to film during the morning of 13 June just after we have completed filming in York Minster.   *(BNC)*

(29) Scott said that, having just completed writing his Remarks on Secular and Domestic Architecture, Present and Future, the "great competition, then, found me in rather a prepared state of mind". It was probably as a result of Hall's "conclave" that, "long before the programme came out", he retired from active engagements to design suitable elements for a public building.   *(BNC)*

The analysis on the complementation of *end* and *complete* with nominals points to other differences between the two verbs (and the construction they appear in). While in the case of *end* the complement may refer to all event types (also to states), in the case of *complete*, the complement tends to refer only to events. *End* often refers to homogeneous event types (e.g. states) (e.g. in Sentence (30) to 'having an interview' and in (31) to 'having a relationship'); in such cases, its meaning is similar to that of *stop*. When the complement of *end* refers to a telic event (e.g. in Sentence (32) to 'writing or directing the play' and also in Example (33), where the complement refers to 'fighting the war'), *end* is more similar in meaning to *finish*.

(30) I know you've got some other amusing stories, I don't know if we've time just to tell one more. Have you got one other story to tell us about your shop? There are so many of them. One man came in, took all his clothes off, tried on a load of things and walked out in them. I think we'd better end the interview there don't you? (BNC)

(31) (..) If it is an illness, is there a cure --; or any hope, do you think, of a happy future for us? Or should I, reluctantly, end the relationship --; which, apart from the aggravation and the havoc, is very good and loving? She is not an irresponsible teenager. She's 32 years old. (BNC)

(32) The sickening way in which Achilles sets his Myrmidons on the unarmed Hector, and then tells them to "cry you all amain, "Achilles has the might Hector slain"" shows that the morality of the Greeks is equally detestable. It is left to Pandarus to end the play, on an infected note which is perfectly fitting. (BNC)

(33) Premier John Major warned of stronger sanctions against those in the conference who could end the war. Singling out the Serbs, he threatened: "No trade. No aid. No international recognition or role. (BNC)

As distinct from *end*, *complete* seems to prefer telic occurrences (in Sentence (34), 'completing the course' means 'study the respective course to the end'; similarly in Sentence (35) 'working' refers to a telic event (it is part of an event)).

(34) The course is of two years' duration. Transferability Students who successfully complete the course may transfer to the second year of the BSc Hons Mathematics, Statistics and Computing course at Jordanstown. (BNC)

(35) Working out the cost of disturbance. A justifiable claim depends on loss being sustained in circumstances envisaged by the contract. The contractor's financial remedy will be defined in the contract. This should also include the cost of funding any additional money required to complete the work.   (BNC)

Finally, not only *complete* but also *end* can refer both to the temporality of an event and the event itself, as (36) shows:

(36) Even then you may have to use that extra bit of guile before you have one in the net. Chub are a confounding fish. At times you can easily "con" one into your net, and at other times you find they are less gullible. They confound you because there are times when conditions are compatible only to a warm bed yet you end the day with a netful of fish.   (BNC)

10.3.1. The complementation of *finish*

Finish is different from both *end* and *complete* in that it frequently appears with sentential *-ing* complements. *Finish* is considered to be a backward-looking construction (Egan 2003) that only takes an *-ing* complement form (and disallows the *to infinitive*). This makes it impossible for *finish* to express the possibility of a future orientation (Wierzbicka 1988). Another explanation of the non-appearance of *finish* with the *to infinitive* is that of Givón (1993), who relates the frequent occurrence of *finish* with *-ing* complements to the implicative nature of the aspectualizer. Givón draws attention to the fact that implicative verbs (*finish* and also *complete*) usually tend to take non-finite *-ing* complements.

As is the case with other aspectualizers that do not allow for *to infinitives* as their complement, the non-appearance of *finish* with *to infinitives* will be understood to be largely motivated by the backward-looking property of *finish*. The meaning of the *to infinitive* construction is in a clash with the semantic value of egressive aspectualizers (*finish* and *complete*).

When the non-finite sentential *-ing* construction appears as complement of *finish*, it gets temporalized. The *finish* + *ing* construction will express the cessation of a durative ongoing occurrence which then implies the presence of a result or a goal state (the prototypical meaning of the *finish* + *ing* construction). The temporal space occupied by *-ing* overlaps with the temporal space of *finish*; that is, the right boundary of *finish* can be considered to coincide with that of the *-ing* construction.

It is also important to note that in the case of the *finish* + *ing* construction the focus is laid on the occurrence itself (schematic meaning) and also the moment of cessation without any expectation for a further occurrence of the complement verb.

10.4. The appearance of finish with eventuality types

According to my findings, *finish* is usually followed by motion verbs that require animate, agentive NPs as their subject (consider *Table 32*, which contains the ten most frequent verbs within finish(ed) + ing).

Table 32. The most frequent verbs within *finish(ed) + ing*. Source: ICAME corpus findings

	Finish + ing (135)	*Finished + ing (518)*
1	Eat (8)	Eat (48)
2	Read (8)	Read (46)
3	Tidy (5)	Speak (42)
4	Dress (4)	Talk (22)
5	Pack (4)	Write (20)
6	Pay (4)	Make (14)
7	Speak (4)	Play (14)
8	Use (3)	Dress (13)
9	Unpack (3)	Pack (11)
10	Fill (3)	Tell (11)

Finish appears in most of the cases with accomplishment event types. Since *finish* takes as its complement events (occurrences that have an inherent end goal, as in Sentence (37)), event types that lack an inherent end-point (states and activities) do not appear as complements of *finish* (Dowty 1979). That is, while Sentence (38) is good with the accomplishment phrase *paint the picture*, it does not accept the activity phrase *walking*.

(37) As she replaced the telephone, Miranda, prim in a high-necked grey flannel suit, checked the Cartier travelling clock on her white desk. She had to finish reading the pile of reports in front of her --; and make the necessary decisions --; before tomorrow's management meeting. (BNC)

(38) John finished painting the picture /* walking. (Dowty 1979)

This does not mean that *finish* would not occur at all with activities; in both of the examples, the complement verbs are activities, drinking and playing, respectively.

39) Jester was an appaloosa stallion who had a very close relationship with his owner. Together they worked hard on a sheep station. It was hot, dusty work checking endless fencing and huge flocks of sheep; so every now and then they stopped at a trough at one of the wells, so that Jester could drink and his

owner could splash his face and arms in the water. One day, Jester had finished drinking and he was watching his master with a languid eye.   (BNC)

(40) (..) In October 1956, Worrell joined Manchester University as a mature student to read for a BA in Economics, changing in his second year to a BA Administration, which included social anthropology. According to his professor, he was thorough and conscientious rather than brilliant, taking his studies very seriously since he wanted both to improve himself and gain a qualification for when he finished playing.   (BNC)

A closer look at these sentences shows that in these cases 'drinking' and also 'playing' acquire an eventive interpretation (in (39), 'drinking' refers to the amount of drink that the stallion usually drinks; in (40), 'playing football' is seen as an activity that will be brought to the end (that is, a certain goal-point is assumed in the sentence)). Another example is Sentence (41), where the activity phrase 'eating' has a more limited sense, referring only to that respective dinner which comes to an end. It seems that when activities appear as complements of *finish*, they acquire an accomplishment interpretation.

(41) (..) Sea trout for supper. Lucker cooks whilst I drink, becoming all misty-eyed and in love with life. I chatter with enthusiasm whilst knobs of butter slide off the fishes' backs and sizzle to blister bubbles. We come to the conclusion that we would like to live here forever, knowing that nothing will stop us being on the plane home. By the time we finish eating, I am quite drunk and feeling sad. We pull on our coats with bleary yanks as the alcohol works its universal spell, and bump out the door.   (BNC)

Finish does not take achievements as its complement. Sentence (42) with the achievement verb phrase 'notice the painting' is unacceptable after *finish*: the event is so short that it cannot be finished. When achievements do appear as part of the *finish + ing*, they are recategorized as accomplishments. This is also what happens in Example (43), where the addition of the NP phrase 'fault' (having a mass noun interpretation) makes the sentence acceptable, since the event acquires a certain duration (an activity phase) which then can be finished.

*(42) Jon * finished / stopped noticing the painting.   (Dowty 1979)*

(43) Two maids were making up our nuptial bed, smoothing the white linen with their dark hands. You'd never have finished finding fault in their work if I hadn't intervened, so that you turned on me saying Their family were turnip doctors at the time of the Bourbons --; an old enmity then, and more imperious even than pleasure.   (BNC)

Sentences (44–45) are examples of *finish* with a state verb. Only in few cases does *finish* take statives as its complement because of the mismatch that exists between the semantics of *finish* and the nature of state verbs (states are unbound and so they cannot be finished). Only such states can appear as complements of *finish* that are understood to be temporary ('being Mayor' in Sentence (44) and 'being sad' in Sentence (45)). The state verbs in these sentences are acceptable with *finish* since they refer to temporary, transitional states that might imply a certain end-point ('being Mayor' is understood to be a temporary state; similarly, 'being sad' is a transitional state):

(44) Graham Mayhew, who is my guest today, is a particularly good example of somebody who has contact with us at all sorts of different levels. Graham, I want to start by asking you about you being Mayor. You look far too young to be a Mayor, but you've just finished being Mayor for Lewes.   *(BNC)*

(45) Dr John Harrison, author of Love Your Disease --; it's keeping you Healthy, claims that sinusitis, particularly in men, often indicates a reluctance to cry. This is a view widely held among alternative and complementary practitioners. If we cry when we are sad, the physiological response is tears from the eyes and nose. When we've finished being sad, the mucous membranes in the nose and sinuses settle back to the normal uninflamed state.   *(BNC)*

CONCLUDING REMARKS. OUTLOOK FOR FURTHER RESEARCH

The present work offers a semantic analysis of the aspectualizers and their non-finite complementation (*to infinitive* and *-ing*) in English. It focuses especially on those aspectualizers that allow for both *to infinitive* and *-ing* complement constructions (*begin*, *start*, *continue*, and *cease*). An important aim has been to find a semantic motivation for the similarities and differences underlying the constructions *begin + to infinitive*, *begin + ing*, *start + to infinitive*, *start + ing*, *continue + to infinitive*, *continue + ing*, *cease + to infinitive*, and *cease + ing*. The main focus has been put on the analysis of the constituent parts within the constructions, their relation to each other (e.g. the relation of the matrix to the complement construction, the relation within the complement construction (e.g. the relation of *to* to the bare infinitive)), and also to the construction as a whole. The analysis starts out from the idea that while similar forms are also similar semantically, the difference in form results in a difference in meaning. As such, the constructions with the *to infinitive* have been assumed to share some similarities and also to differ from constructions containing the *-ing* complement form. Another hypothesis has been that the semantic value of a construction does not only result from the semantic value of the matrix but rather from the interaction of the matrix with the subject and the complement construction of a particular sentence. Both assumptions seem to have been confirmed through the analysis of corpus data.

Motivated by the multitude of values they can have, the complement constructions *to infinitive* and *-ing* are defined as having both a schematic and a prototypical meaning. The two meanings are closely intertwined, standing, on the one hand, for the meaning of the construction in different contexts (its schematic meaning, defined with respect to the profile of the construction path–goal schema of the *to infinitive* and container schema of the *-ing*), and, on the other hand, for the value of the construction in a certain occurrence (the prototypical meaning). The difference between them is that while the schematic meaning stands for all occurrences of a construction, the prototypical meaning is more construction-specific, acquiring its value after the complement construction gets embedded into a higher construction containing the matrix verb (e.g. *begin*). Also, while the schematic meaning is defined only with respect to viewing (aspectual meaning), the prototypical meaning can encompass a series of semantic values (temporal, modal-temporal, and also non-temporal values) depending on the semantics of the matrix. In this approach, the *to infinitive* and *-ing* are seen as meaningful constructions, having a meaning of

their own, but also greatly depending on the meaning of the matrix verb (their prototypical meaning).

In addition to the constructions mentioned, other aspectualizers expressing the continuity (*continue, keep, keep on, go on*), respectively the end or cessation of a situation (*quit, stop, finish, end, complete*) as well as their non-finite complement constructions have also been *analyse*d. The approach, following the line of a constructionist framework (following mainly Goldberg 1995, 1997) also adopting elements from cognitive grammar (Langacker 1990, 1991, 1999, 2009), can be considered constructionist in the sense that the aspectualizers and their complement forms are seen as constructions, they themselves being part of a larger macro-construction. This macro-construction, containing the meaning of the matrix, that of the complement construction and the subject, is assumed to have a meaning of its own which, although greatly motivated by the matrix and the other constituents of the sentence, is imagined to be more than the sum of the meanings of each construction.

The corpora used for the empirical analysis of the aspectualizers and the complement constructions have been ICAME (especially the Brown, Frown, Flob, and LOB corpora), the BNC, and also Webcorp (the Web as corpus). The intention has been to find after a fine-grained analysis on a smaller corpus (qualitative analysis) some statistical evidence for certain constructions in a larger corpus (e.g. the BNC) (quantitative analysis). As such, both types of corpus analyses – the qualitative and the quantitative one – are combined in the analysis.

The data collected and processed can be considered to be of a fairly large amount. They illustrate a variety of values these constructions can have, ranging from aspectual and temporal to modal values. The data also point to a close interrelation between the semantic value of the matrix verb, the form of the complement construction (*to infinitive* or *-ing*), the event type of this complement, and also the thematic role of the subject (agentivity vs. non agentivity). In line with the assumption that the semantics of the complement construction and also that of the subject determine the meaning of a construction to a great extent, an emphasis has been laid on the analysis of these constructions (the eventuality type of the complement, the thematic role of the subject).

Last but not least, assuming that the larger linguistic context also influences the meaning of the constructions, special attention has been given to the context the constructions appear in.

Despite the fact that this work offers a fairly detailed and exhaustive analysis of the aspectualizers and the complement constructions, the conclusions drawn cannot be considered as final or complete, for several reasons. First, the analysis has been limited to the corpora mentioned above and also because several aspects of the constructions have not been considered. The present analysis is limited to a synchronic analysis and only partly discusses the diachronic development of the aspectualizers and their complementation. A more detailed diachronic

analysis could shed light on several phenomena which remained unanswered in this analysis (the more frequent occurrence of a certain form over the other, e.g. the more frequent occurrence of *cease + to infinitive* as compared to *cease + ing*).

Another aspect, which has not been touched upon and would require further attention, is the semantic-pragmatic interface of the aspectualizers and their complement constructions. In order to have a deeper understanding of the use of aspectualizers and the complement constructions, a pragmatic analysis would also be necessary along a semantic one. The present analysis has dealt with the inherent, semantic meaning of the aspectualizers and the complement constructions *to infinitive* and *-ing*. What has not been taken into consideration and is the intended meaning of a speaker's utterance: this intended meaning can differ from the semantic meaning of a construction, so that the meaning the speaker intends to communicate with a particular occurrence may be different from the semantic meaning.

Pragmatic meaning defines meaning through context understood in a wider sense. A pragmatic analysis of the aspectualizers and the complement constructions would be desirable since in many cases the semantic meaning cannot motivate entirely the possible similarities, respectively differences between constructions sharing the same matrix but having a different complement construction (e.g. *begin + to infinitive* / *begin + ing*) or constructions with a different matrix but the same complement form (*begin + to infinitive / start + to infinitive*). This is also the case with the example below, where the slight difference between the sentences (e.g. *began to rain / raining*) can hardly be explained from a semantic perspective only. In order to adequately explain the possible differences involved in these sentences, it is desired that pragmatic factors be also taken into consideration:

(1) It began to rain / raining.
(2) She is beginning / starting to accept the situation.
(3) He stopped / quit worrying about the problem.
(4) As the state's scare tactics became progressively more outrageous we simply ceased to worry / worrying about the problem.

The present analysis has been mostly based on written corpus data, with a little amount of spoken data (from the BNC corpus). An advantage of a pragmatic analysis would be that besides written data spoken data would also be considered. Detecting the possible intended meanings in utterances would also be relevant in the case of aspectualizers as it would help us gain a new perspective over the use of these grammatical constructions. A combined semantic-pragmatic perspective would be a further step to a deeper understanding of the topic and would possibly yield more desirable results. This calls for further research.

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KIVONAT

Az angol aspektuális igék szemantikájának vizsgálata korpusznyelveszéti módszerekkel [*On Aspectulalizers in English. A Corpus-based Approach*] átfogó szemantikai elemzést nyújt az aspektuális igékről és igeneves szerkezeteikről. A könyv abból a feltételezésből indul ki, hogy a formabeli eltérések szemantikai különbséggel is járnak, feltevés, amelyet az elemzés korpusznyelvészeti adatokkal próbál igazolni. Ez az elképzelés szerint az aspektuális szerkezetek és tárgyas szerkezeteik közötti különbség egyrészt a *to infinitive*, valamint az *-ing* szerkezetek különböző szemantikai értékének, másrészt az aspektuális igék szemantikájának is tulajdonítható. Az elemzésben nagy hangsúlyt kapnak a *begin+to infinitive*, *begin+ing*, *start+to infinitive*, *start+ing*, *continue+to infinitive*, *continue+ing*, *cease+to infinitive, go on+to infinive*, *go on+ing*, *cease+to infinitive*, *cease+ing* konstrukciók. Ezen szerkezetek mellett más aspektuális igék (*keep*, *keep on*, *go on*, *finish*, *end*, *complete* és *resume*) szemantikai elemzését is kínálja a könyv.

REZUMAT

On Aspectualizers in English. A Corpus-based Approach [Analiza semantică a semiauxiliarelor de aspect. O abordare din perspectiva lingvisticii computaționale] oferă o descriere semantică detaliată a semiauxiliarelor de aspect și a structurilor verbale la moduri nepersonale în limba engleză. Cartea se bazează pe ideea ca diferențele între structuri sintactice se reflectă în valori semantice diferite, ideea pe care această lucrare încearcă să susțină pe baza datelor și exemplelor obținute prin metode computaționale. Conform acestei ipoteze, se atribuiesc valori semantice diferite ale construcțiilor aspectuale cu compliniri infinitivale de cele gerunziale, acestea fiind *begin+to infinitive*, *begin+ing*, *start+to infinitive*, *start+ing*, *continue+to infinitive*, *continue+ing*, *cease+to infinitive*, *go on+to infinive*, *go on+ing*, *cease+to infinitive*, *cease+ing*, diferențele între ele fiind motivate de semantica semiauxiliarelor de aspect cât și ale structurilor infinitivale si gerunziale. În afara acestor structuri cartea oferă o analiză și a semiauxiliarelor de aspect *keep*, *keep on*, *go on*, *finish*, *end*, *complete* și *resume* și *a* complinirilor lor.

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