# Complement Selection of Aspectual Verbs*

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## 1. Introductory remarks

The English complementation system has been a topic of long-standing interest to linguists and many analyses have been presented on the syntactic and semantic properties of infinitival and gerundive complements. A traditional semantic-syntactic parameter between infinitival and gerundive complements has mainly relied on the principle that the former expresses something "hypothetical, future, unfulfilled," whereas the latter denotes something "real, fulfilled." However, rigorous adherence to this principle meets with a lot of counterexamples. Hamada (2000) has argued that infinitives and gerunds are to be differentiated from each other in that they have distinct modes of conceptualization of their own, i.e., an event coded in an infinitival complement is located in the cognitive domain of a matrix subject's referent whereas that coded in a gerundive complement is situated out of the domain. This means that acknowledging the parallelism between the speaker's role as a conceptualizer vis-à-vis a grounded expression and the subject's role with respect to a complement clause (see Langacker 1991: 446-447), the crucial parameter between the two complements

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is whether a subject's referent construes an entity encoded in a complement subjectively or objectively.

In addition, an infinitival complement in the S + V + to V construction is construed as being eventive (or processual) and the matrix subject has control over the eventual completion of that event. This reflects the cognition that the matrix subject's referent conceptualizes the complement's process more subjectively. On the other hand, a matrix subject of the S + V + V-ing construction does not have any controllability over an event denoted in the complement. Instead, a concept denoted in the gerundive complement has a conceptually autonomous structure (i.e., thing-like entity). This reflects the conceptualization of the matrix subject's construing the subordinate process more objectively as a unitary entity. I have thus proposed in Hamada (2000: 48) the respective semantic structures, diagrammed in Figure 1 (a) and (b):

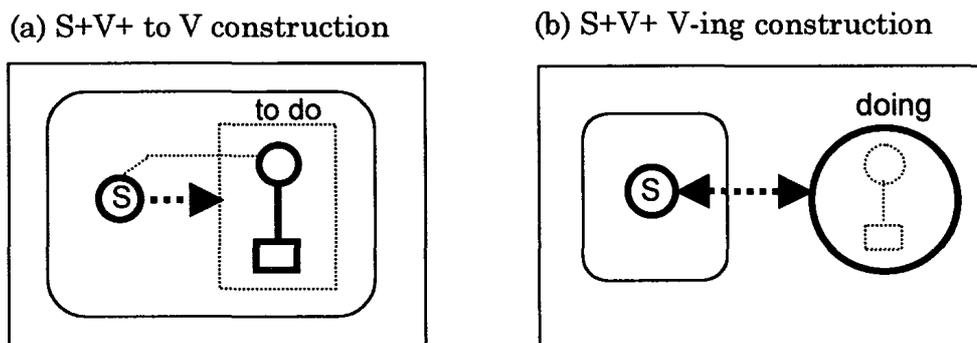(a) S+V+ to V construction        (b) S+V+ V-ing construction



Figure 1

My central claim in this paper is that the same cognitive principle is equally applicable to the complement selection of aspectual verbs in spite of their own peculiarities.

## 2. Peculiarities of aspectual verbs

In this section, I will consider the complement selection of aspectual verbs and argue that it can be accounted for in a principled way by resorting to the conceptual difference between infinitives and gerunds.

Importantly, aspectual verbs have commonality in that both an infinitival and a gerundive complement can be construed as being within the matrix subject's cognitive domain. This peculiarity is ascribable to the fact that aspectual verbs denote the inception or termination of a process that a complement clause designates. For this reason, the process, unlike sentence (1a), does not constitute a semantic unit which is independent of the matrix verb, as exemplified in (2):

(1) a. John enjoyed playing the piano.

    b. It was playing the piano that John enjoyed.

(2) a. John started snoring.

    b *It was snoring that John started.       (Wierzbicka 1988: 84)

In addition, events coded in complement clauses must be simultaneous with aspectual verbs. Hence, the unacceptability of the following sentences results:

(3) a. *John began having said something important.

    b. *John began having eaten dinner.

    c. *I finished having talked.

    d. *She started having got caught.

This peculiarity strikingly contrasts with sentences like those in (4) where the matrix verbs are not aspectual:

(4) a. Mary confesses having stolen the purse.

    b. John acknowledged having been defeated.

In what follows, with these peculiarities in mind, I will characterize the semantic structures of aspectual verbs with infinitival or gerundive complements.

## 3. Semantic structures of S + V (aspectual verbs) + to V/V-ing

Notable here as the outset of our discussions is Izutsu's (1997) insightful analysis of inceptive and terminative phases of a process. He has defined these phases as the following:

(5) a. THE PAHSE OF INCEPTION (a tentative cross-linguistic definition)

    A change in which some ENERGETIC and DURATIONAL relation comes into existence in a setting.

                                                   (Izutsu 1997: 327)

    b. THE PHASE OF TERMINATION (a tentative cross-linguistic definition)

    A change in which some ENERGETIC and DURATIONAL relation goes out of existence in a setting.

                                                   (ibid.: 338-339)

Following him, an inceptive phase of an event coded in a complement clause can be characterized as (6):

(6) A change in which an event coded in a complement comes into a subject's immediate dominion.

By this definition, the conceptualization of an event's inception comprises two facets: one is the exertion of energy by a subject entity to the appearance of a process a complement clause designates, and the other is the resultant appearance of the process in the subject's immediate dominion, as diagrammed in Figure 2:
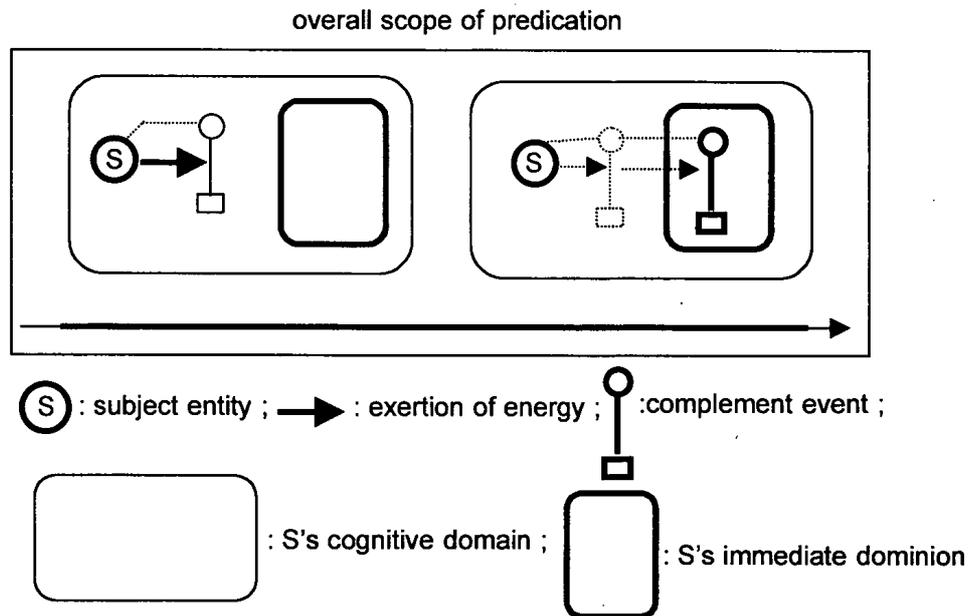
overall scope of predication



Figure 2

The viability of this semantic structure can be supported by Dixon's (1984) observation. According to him, for sentence (7a) to be appropriate, *Mary* had merely raised the stick but had not yet brought it down upon *John*'s head. On the other hand, sentence (7b) could be said when she must

have rained at least a few blows on him.

(7)  a. Mary began to hit John.

b. Mary began hitting John.

His analysis can also be reinforced by the following sentences:

(8)  a. He began to say something, but his words broke into a rasping cough.

b. I started to interrupt, but he waved me to silence.

(Konishi 1980: 121, 494)

The semantic contrast between (7a) and (7b) can be accounted for by resorting to which of the two facets is in focus or in the immediate scope of predication for expressive purposes.   What I am suggesting is that sentence (7a) is a linguistic manifestation of the semantic structure in which the first facet of the composite structure is in focus, whereas in sentence (7b) the second facet is in focus, as shown in Figure 3 and 4, respectively.

Crucial here is that in the S + Inceptive verb + to V construction, an event designated by an infinitival complement is construed as a process
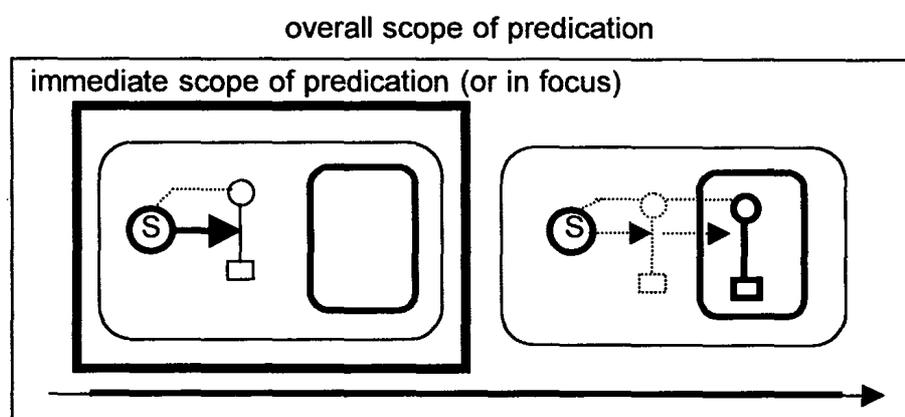


Figure 3   The semantic structure of S + Inceptive verb + to V
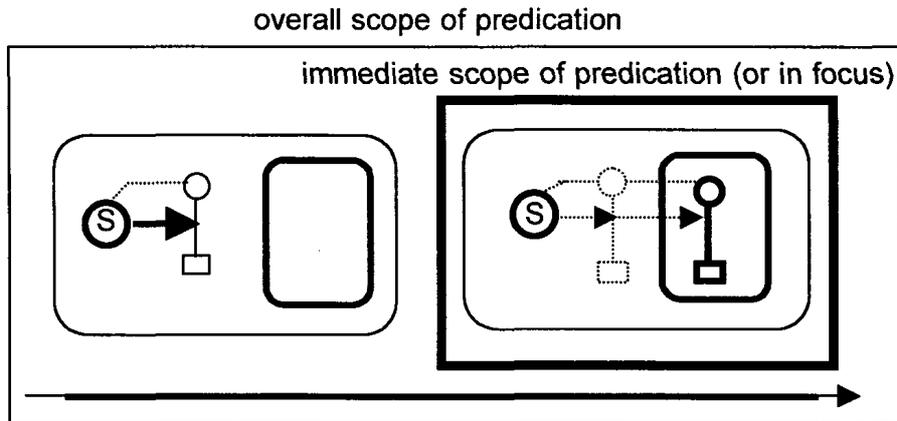
overall scope of predication



Figure 4　The Semantic Structure of S + Inceptive verb + V-ing

which appears as a result of the exertion of energy by the subject's referent, while with regard to the S + Inceptive verb + V-ing construction, an event designated by a gerund is conceived of as a resultant existing entity. I suggest that if the small rectangle within the matrix subject's cognitive domain is regarded as an onstage region, it can be said that the first facet of the composite semantic structure is construed subjectively, whereas the second facet objectively. Therefore, there exists commonality in conceptualization between Figure 1 (a) and Figure 3 on the one hand, and between Figure 1 (b) and Figure 4 on the other.

I will turn to the conceptual characterization of an event's termination, which can be defined as the following:

(9)　A change in which disappearance of an event coded in a complement comes into the subject's immediate dominion.

By this definition, the conceptualization of an event's termination also comprises two facets: one is the exertion of energy by a subject entity to the disappearance of a process a complement clause designates, and the other is the resultant disappearance of the process out of the subject's immediate
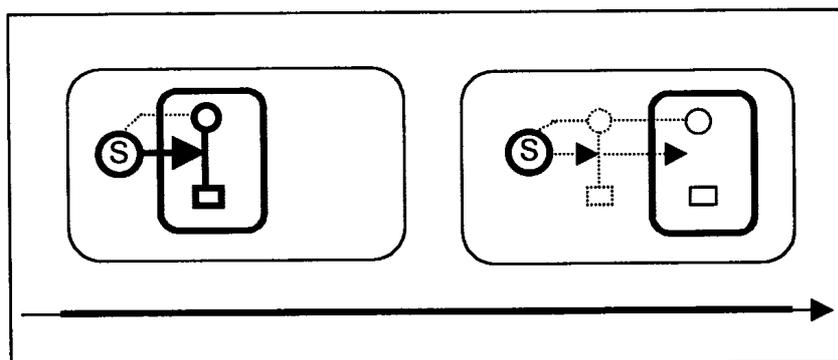
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Figure 5

dominion, as sketched in Figure 5:

With regard to this conceptual processing, we can say that the second facet of the composite semantic structure is liable to be in focus at default value, as exemplified by the difference in acceptability between sentences (10) and (11):

(10) a. John finished reading the book.

    b. Bill completed repairing the car.

    c. Jim quit smoking.

(11) a. *John finished to read the book.

    b. *Bill completed to repair the car.

    c. *Jim quit to smoke.

This mode of conceptualization reflects the fact that verbs like *finish*, *complete*, and *quit* focus on the disappearance of an event per se. Thus, the semantic structure can be depicted in Figure 6:[1]

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[1] My claim here is applicable to a verb like *cease*, which takes a to-infinitive as well as a gerund as its complement, as shown in (i):

(i) Lacy ceased to cry when she heard her parents come in the door.
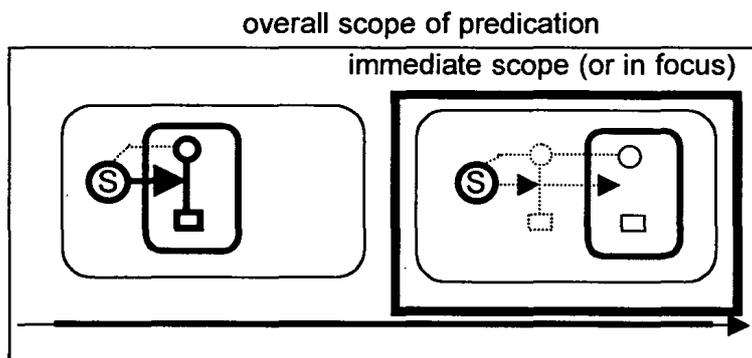
**overall scope of predication**



Figure 6

It should be noted here that the second facet of the semantic structure (i.e., the resultant disappearance of an event) cannot be manipulated or controlled by the matrix subject.

Furthermore, the objectification of the beginning or end of an event per se can be exemplified by the following sentence, which suggests that an objectively construed event is coded in a gerundive complement.

(12) The beginning/end of the semester is approaching.

The relational predication *approach* profiles the interconnection between two entities, i.e., one entity, referred to as a trajector, moves from a position outside the neighborhood of another entity (i.e., a landmark) to a final position within that neighborhood, as diagrammed in Figure 7:

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The aspectual verb *cease*, as Wierzbicka (1988: 81) points out, suggests an ongoing process which at first can be expected to continue but which at a certain point can be expected to come to an end. For this reason, the verb is quite compatible with gradual change, as shown in (ii):

(ii) a. Gradually, imperceptibly, the tremor/rain ceased/?stopped.

b. The noise stopped/?ceased as suddenly as it had started.

This means that we can analyze the infinitival complement of *cease* as the overall scope in Figure 5 being in focus.
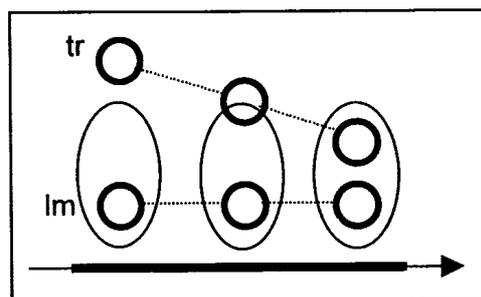
Figure 7

Figure 7 shows that both appearance and disappearance of an event can be metaphorically construed as being outside the landmark's cognitive domain. It is obvious in this sense that the semantic structure depicted in Figure 7 is analogous to that in Figure 1 (b). We can thus conclude that complement selection of aspectual verbs conforms to the same principle as that of other verbs.

## 4. Semantics of *begin* and *start*

### 4.1. Conceptual difference between infinitives and gerunds

As for S + V (*begin/start*) + to V/V-ing constructions, it is well known that there exists a semantic constraint on the nature of a process coded in a gerundive complement. Let us begin with observing the contrast in well-formedness between sentences in (13) and (14):

(13) a. John began to see how it works.

 b. *John began seeing how it works.

(14) a. Nora started to know right from wrong.

 b. *Nora started knowing right from wrong.

Wierzbicka (1988: 86) has pointed out, with regard to this contrast, that the crucial difference is that between a process and a state, arguing that

aspectual verbs such as *begin* and *start* force us to interpret the following gerund as compatible with a dynamic, processual interpretation. In my view, this semantic constraint can straightforwardly be accounted for from two perspectives.

The first observation is the notional difference between perfective and imperfective processes. Langacker (1990: 87-88) argues that a bounded process, which portrays a situation as changing through time, is termed 'perfective' because its initial and end points are included within the scope of predication in the temporal domain, whereas an unbounded process is called 'imperfective' because it profiles a stable situation that may extend indefinitely far beyond the scope of predication in either direction. The distinction between them can be sketched in Figure 8:
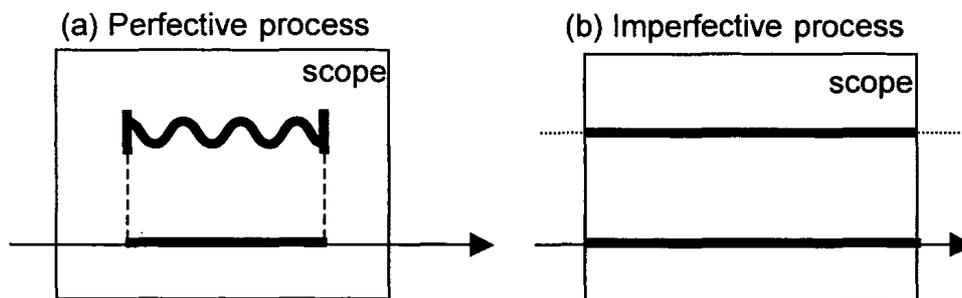


Figure 8 (Langacker 1990: 88)

It is evident from his analysis why imperfective processes cannot co-occur with the aspectual verb *begin*. In gerundive nominalization of an imperfective process, the initial and end points cannot be conceptualized within the region in the relevant domain, as depicted in Figure 9, and therefore the imperfective gerund does not have affinity with the notion of inception the verbs *begin* and *start* designate.

On the other hand, imperfective verbs can co-occur with a *to*-infinitive, as exemplified in sentences (13a) and (14a). This linguistic phenomenon
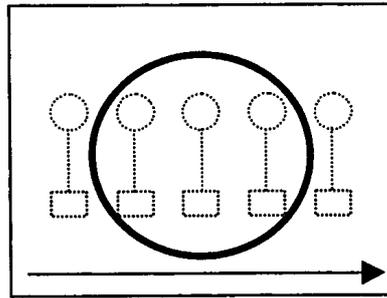
Figure 9

indicates that the infinitive *to* has a particular function which construes an event described as a perfective process. This mechanism can be predictable from Langacker's (1991: 446) analysis, who argues that the infinitive *to* derives a complex atemporal relation that profiles all component states of the verb it combines with, and has the notion of the *path-goal* image schema inherently, thereby the component states of a process being construable as a path leading to its completion. Needless to say, the semantic structure depicted in Figure 2 can accommodate these observations. That is, the structure of begin/start to V focuses on the first facet of the semantic structure while that of begin/start V-ing on the second facet. The former's mode of conceptualization allows an imperfective process to be construed as a delimited entity with its initial/end points being evoked.

Worthy to be addressed for further development of our discussions is that sentence (13a) is different from sentence (7a) in a crucial point. The semantic role of the subject in (7a) is an agent and the event coded in the complement is a volitional action, whereas that of the subject in (13a) is rather an experiencer and the complement event is conceived of as non-volitional. In the following subsection, I will consider this conceptual difference in terms of the notion of "subjectification" in the sense of Langacker (1990, 1991, 1999).

## 4.2. Two meanings of the verb *begin*

Perlmutter (1970) argues that the verb *begin* has two deep structures: one is that of an intransitive verb like *seem* and *happen*, and the other is that of a transitive verb like *try* and *refuse*. Accordingly, a sentence like *Zeke began to work* would be structurally ambiguous, either derived by Raising from the deep structure (15a), or by Equi from the underlying structure (15b), as diagrammed respectively:
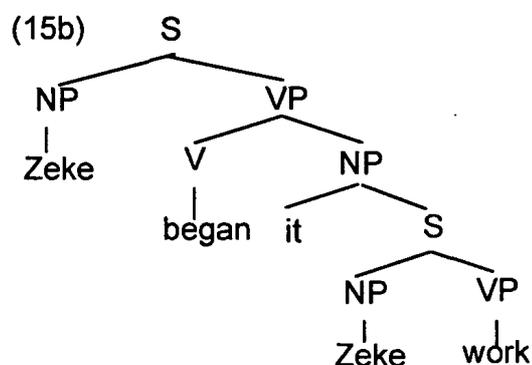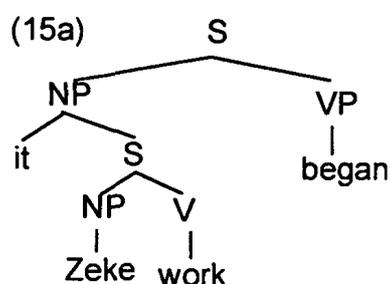


However, following the tenets of Cognitive Grammar, our analysis only posits a single verb *begin*. I claim that the two meanings result from two aspects of the verb *begin*: one is intentional (i.e., force-dynamic relationship between a subject entity and a complement event) and the other is aspectual. The relationship between the two types of *begin* can be naturally captured in terms of the notion of "subjectification," which is immanent and ubiquitous in our conceptualization of any process.

Langacker (1999: Ch. 10) argues that every expression implies a construal relationship between the conceptualizer and the conception entertained. Canonically, the conceptualizer remains offstage, functioning as the subject of conception, whereas the specific object of conception is the expression's profile (i.e., the focal point within the immediate scope). To

the extent that this asymmetry maintains, the conceptualizer is construed subjectively, and the profile objectively. What is important here is that the contrast between subjective and objective construal is a matter of vantage point and role of the conceptualizer in a viewing relationship. The cognitive process of a shift from an objective construal of some entity to a more subjective one is termed "subjectification." He introduces the notion of "attenuation" in the degree of control exerted by a subject entity to explicate this notion, making his claim more explicit by observing the two senses of *be going to* construction, as exemplified in (16):

(16) a. Sam was going to mail the letter but couldn't find a mailbox.

    b. Sam was going to mail the letter but never got around to it.

    c. Something bad is going to happen --- I just know it.

    d. There is going to be another storm tonight.

<div align="right">(Langacker 1999a: 303)</div>

In the physical motion sense of (16a), the subject's referent does not only move but also has the intention to carry out the infinitival event (i.e., lm) at the end of the spatial path. In (16b), the subject's activity is attenuated by virtue of having lost its physical motion but the intention toward realization of the infinitival process still preserves. With regard to (16c-d), the subject no longer has any role in bringing about the infinitival event. The progressive attenuation and diffusion in the locus of control can best be characterized in terms of the notion of subjectification, sketched in Figure 10.

    In the initial configuration, an event described is a physical motion of the trajector through time (t) and therefore it depicts an objectively construed, profiled relationship. What is important here is that in this construal the conceptualizer (C) does some kind of mental scanning (or activity)
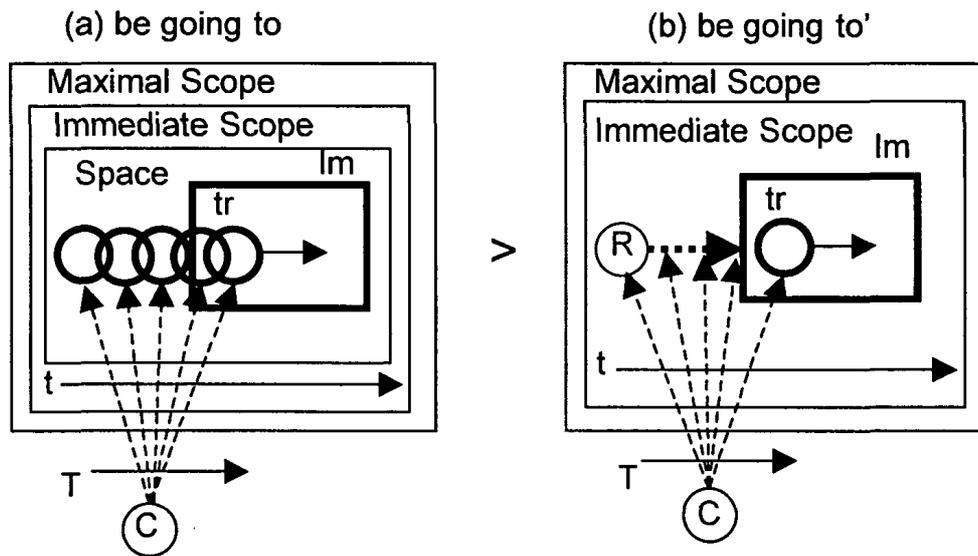
Figure 10 (Langacker 1999a: 303)

carried out through processing time (T). On the other hand, as depicted in the second diagram, as far as the future sense of *be going to* is concerned, objective motion is lacking. The profiled relationship resides in the conceptualizer's locating the situation by mentally scanning forward through time from some reference point (R). In other words, the conceptualizer traces a mental path along the temporal axis and situates the infinitival event downstream in the flow of time relevant to the reference point. The future sense therefore results from this mechanism.

The very same cognitive principle is applicable to the semantic difference among the sentences below:

(17) a. John began to read a book.

b. John began to like his new teacher.

c. Oil began to gush from the well.

d. There began to be a commotion.

The sentences show progressive attenuation in the degree of control exerted

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by the subject entities. In (17a), the subject is construed as a volitional agent who brings about the event coded in the infinitival complement. On the other hand, sentence (17b) shows that the subject is not a volitional agent but an experiencer with respect to the complement event. Moreover, in (17c), the subject is inanimate and the outset of the event described is in profile. This means that the sentence indicates further attenuation in the degree of subject control. Finally, sentence (17d) merely presents a particular event in a current discourse space without profiling its agent. The respective semantic structures can be depicted in Figure 11 (a-d):
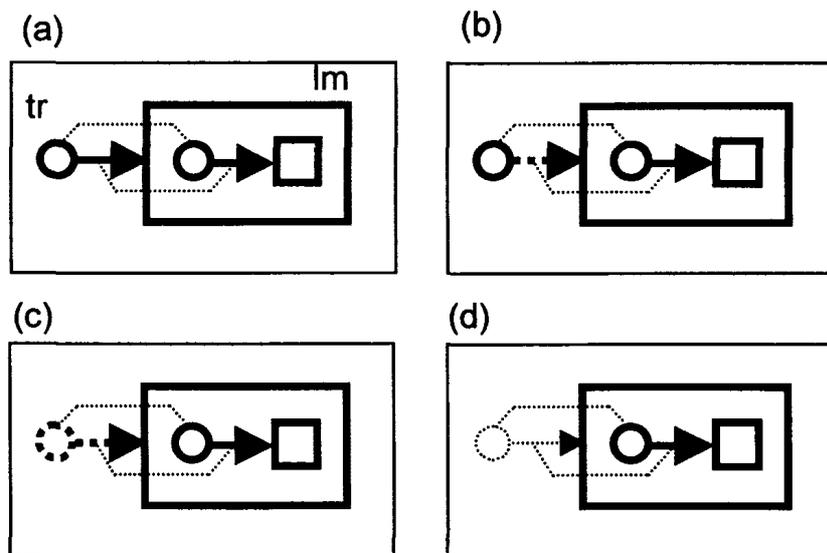


Figure 1 1

### 4.3. Semantic difference between *begin* and *start*

The verbs *begin* and *start* are both in the same category of an inceptive verb. However, it is obvious that there is slight semantic difference between them. In this subsection, I will consider this problem and make explicit the semantic nature of each verb.

First, observe the following contrast:

(18) a. It slowly/gradually began to rain.

    b. ?It slowly/gradually started to rain.

(19) a. ?It slowly/gradually began raining.

    b. ?It slowly/gradually started raining.

The above data indicate that an event which happens (or appears) slowly or gradually is liable to be coded in the form of the S + begin to V construction. In addition, the linguistic data in (20) show that the verb *begin* is likely to co-occur with an infinitival complement rather than a gerundive complement, whereas the verb *start* tends to co-occur with a gerundive complement rather than an infinitival complement.

(20) a. It began to rain. > It began raining.

    b. It started raining. > It started to rain.

This contrast can be best accounted for by postulating that the two verbs are different from each other in that they profile different portion of the inception of an event, as sketched in Figure 12 (a) and (b):
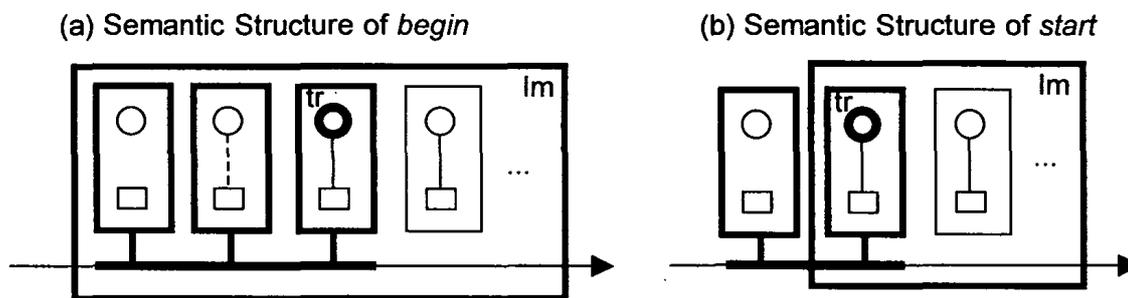
**(a) Semantic Structure of** *begin*        **(b) Semantic Structure of** *start*



Figure 1 2

On the other hand, the semantic structure of an infinitive can be depicted in Figure 13 from Langacker's (1991) characterization:
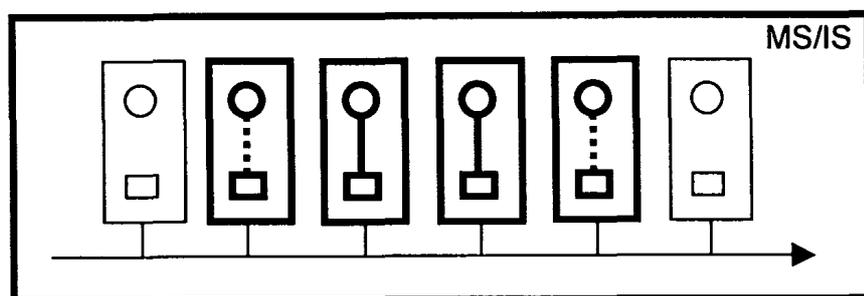
Figure 13   Semantic Structure of Infinitive

The infinitive *to*, as noted, has the notion of the *path-goal* image schema and profiles all the component states of the verb it combines with.   It is obvious from this that the concept the verb *begin* designates has affinity with the conceptual structure of an infinitive, rather than the verb *start*, which denotes abrupt inception of an event as depicted in Figure 12 (b).   Thus, the verb *start* is likely to co-occur with a gerund rather than an infinitive.   This linguistic fact results from the semantic nature of a gerund, i.e., it is a nominalization of an event (i.e., thing-like entity) and therefore the gradual nature is not in profile.

## 5. Concluding remarks

I have tried to make explicit the semantics of infinitival and gerundive complements from the theoretical framework of Cognitive Grammar.   My central claim is that an event coded in an infinitival complement is located WITHIN the cognitive domain of the matrix subject's referent whereas that of the gerundive complement is situated OUT OF the domain.   This reflects the cognition that a subjectively construed entity is coded in an infinitival complement whereas an objectively construed entity is coded in a gerundive complement.   I have exemplified that this cognitive principle is equally applicable to the complement selection of aspectual verbs.

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