

Coercion and Information Structure in English Progressive Construction with Achievement Verbs

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Abstract: English progressive aspect which characterizes dynamicity and duration illustrates an ongoing process at a specific temporal point or during a temporal interval; therefore, achievement verbs and stative verbs generally cannot be used in English progressive aspect, but a large number of achievement verbs indeed appear in English progressive aspect. Regarding it as a construction, this paper explains this abnormal phenomenon based on the notions of coercion in Construction Grammar. According to the analysis, it can be found that “dynamicity” and “duration” are the core constructional meanings of the English progressive construction. Additionally, a prototype-based category of the concept ACTIVITY with the main properties of “causal control”, “dynamicity”, and “duration” as its main properties is built. Scalar adjustment and conceptual metonymy matter a lot in the process of coercion. When coarse-grained scalar adjustment is adopted, achievement verbs are coerced into undirected activities or directed activities. Through this coercion, the English progressive construction with achievement verbs obtains the interpretation of repetition or overall trend. When fine-grained scalar adjustment is adopted, the achievement verb in the English progressive construction can refer to this neighbouring dynamic durative process through part-part metonymy, which contributes to the interpretation of preparatory stage or plan. Furthermore, the information structure of English progressive construction is also explored.

Keywords: Construction Coercion; the English Progressive Construction; Scalar Adjustment; Conceptual Metonymy; Information Structure

1. Introduction

Aspect reflects the way in which the verb action is regarded or experienced with respect to time (Quirk et al 1985: 188). It can be understood as “a notion of time, distinction from tense, that refers to the internal temporal structure of events and activities named by various linguistic forms” (per Freed 1979: 10). Durst-Andersen (2018) holds that aspect is a communicative-based category and aspect in English is first-person orientated which is based on the speaker’s experiences of situations in reality.

Langacker (1990) categorizes aspects into two subtypes: perfective and imperfective. In English, the imperfective grammatical feature is obtained by the progressive form be+v-ing, and progressives act as a kind of stativizer, converting events to states; hence, progressives with states are unneeded. In comparison, Quirk et al. (1985: 197) assert that “the progressive aspect (also known as the DURATIVE or CONTINUOUS aspect) denotes an event that is TAKING PLACE at a given moment.” This paper mainly adopts the classification made by Quirk et al because it is accepted by other scholars widely.

Since the progressive aspect tends to depict an event in progress which implies changes and lasts over a specific length of time, punctual verbs indicating situations that cannot endure for an extended period of time are not expected to be utilised in the English progressive aspect. Surprisingly, several punctuational verbs, dubbed “verbs of achievement” or “achievement verbs” (Vendler 1967), such as die, flash, and burst, do occur in the progressive aspect of English in a variety of contexts with various meanings. For example:

- (1) Tom is dying, so we must hurry.
- (2) The light is flashing at a irregular frequency.
- (3) The engines were exploding on the other side of the grass.

In terms of this abnormal phenomenon, previous studies only involve its semantic essence and pragmatic functions and the motivations behind them, without paying enough attention to the reasons why “achievement verbs” can be licensed in English progressives aside.

Construction Grammar holds that the semantic features and pragmatic functions and the syntactic features of a construction should be considered as a whole. This notion provides an important vehicle for analyzing the English progressive structure *be+v-ing* with achievement verbs, which can provide some insights to the issues unanswered well by far. In view of this, this paper aims to explore the English progressive aspect by answering the following questions:

Why can achievement verbs be used in English progressive aspect construction?

What are the mechanisms behind the use of achievement verbs in English progressive construction?

What is the function of English progressive construction in terms of the information structure?

2. Literature Review

2.1 Definition of English Progressive

Be+v-ing derives from the Old English forms *be+on+v-ung* and *be+on+v-unge* (Alexiadou 2013). The progressive aspect was initially attained in Middle English through the form *be+on+v-ing* and later through the form *be+a-v-ing* (Bybee, Perkins, & Pagliuca 1994: 132; Shen 2017: 7). Modern English lacks the locative prepositional morpheme *a-*, and the English progressive aspect takes the form *be+v-ing*, which is widely regarded as a marker for an ongoing process, implying that achievement verbs with punctual interpretations should not have been used in this restriction; however, some achievement verbs are used in this construction, and the construction now has a polysemy network rather than a single sense of “ongoingness”.

2.2 Semantic Features of English Progressives

The progressive aspect in English is frequently referred to as an extended tense (Jespersen 1949), implying a strong link between tense and aspect. However, the majority of experts prefer to separate tense and aspect. Comrie (1976: 3) asserts that tenses refer to temporal relations between the time of the occurrence and the time of utterance, whereas aspects refer to “differing perspectives on the internal temporal constituents of a situation.” According to Richards (1981), the English progressive aspect is not employed to express an activity occurring at a specific time, but rather to indicate an unfinished or occurring occurrence. Additionally, it reflects an event’s interior perspective (Bache 1985; Smith 1991; Wu 2006; Xie 2001).

According to Leech (1971: 15 -18), English progressives have three distinguishing characteristics: limited length, incompleteness, and temporariness. Palmer (1974: 55 -58) contends that the English progressive aspect’s primary meaning is process; yet, it also has the connotation of sporadic repetition. According to Quirk et al. (1985: 197 - 198), English progressives encompass three semantic components: the happening has duration; the happening has a limited duration; and the happening is not always complete. Zhang (2003: 191-192), Celce-Murcia, and Larsen-Freeman all concur on this point (1983:69).

Shi (2001:166) identifies three fundamental semantic properties of progressive as dynamicity, limited duration, and incompleteness. According to Kabakciev (2000) and Xie (2001), the primary semantic purpose of progressive phrases is “cancelling boundedness,” indicating that the speaker is solely concerned with a certain point or period of the progress.

2.3 Information Structure of English Progressive Aspect

In terms of aspect, foregrounded clauses are typically perfective, and often contain punctual verbs, representing the dynamic action of the storyline. Backgrounded clauses are often imperfective, and contain mostly durative, iterative or stative verbs (states, descriptions, recurrent events). Killie (2008) put the instances of English progressive aspect under four major categories, including stative, durative, focalized and narrative categories. Importantly, these categories are largely distinguished on the basis of the formal and/or semantic textual context of each instance. Hence, Petr é (2015) refers to them as the stative, durative, focalized and narrative co-texts of progressive construction respectively. Only at

an advanced stage does focalized progressive construction get somaticized, resulting in the emergence of what may be called a progressive proper.

Considering these four functions in detail will further clarify the construction's relationship with back roundedness. Petr  (2015) points out that many instances of the English progressive construction readily reveal what will turn out to be a significant natural association with back grounded material.

At the level of grounding, instances of stative progressive construction often belong to the background of the narrative discourse and are no immediate part of the main action or plot line. However, the durative quality of progressive construction is arguably overridden by its generic quality. Generic statements side with stative events, in the sense that they typically express a 'time-stable and prototypical (but not necessarily essential) property of the topic' (Behrens 2005: 275). Therefore, it is harder to interpret progressive construction with stative events in terms of grounding, because it is not a narrative text.

In a durative context, progressive construction is more verbal and process-oriented than in a stative one. Contrary to focalized progressive construction (be-v-ing), however, the ongoing event is not viewed as intersecting with a single point topic time, but rather as being sustained by an agent for a limited period of time. Topic time, in this case, coincides with the situation time of the progressive construction situation.

In the durative use, the subject of progressive construction is agent-like, because controlled effort is needed to keep up the situation expressed by this construction. It performs an activity for a bounded amount of time (the topic time), which is either explicit or is implied in the context. Unlike what we found with the stative use, durative co-texts do not show a clear association with back roundedness.

Thirdly, progressive construction may be focalized. Such focalized use is the most common use in Present-day English. Progressive construction is considered focalized when it is 'viewed as going on at a single point in time, here called "focalization point"' (Bertinetto, Ebert & de Groot 2000: 527). This focalization point may be explicit or implicit. Typically, focalized progressive construction expresses a background action (Bertinetto 2000: 565), which serves as a frame for an intervening foregrounded action (the focalization point). This use corresponds to the time-frame use first defined by Jespersen (see Kranich 2010: 35). Alternatively, the focalization point may also be the topic time at which the situation expressed by progressive construction is going on.

In contrast to the time-frame usage, instances of the ongoing present may express foregrounded situations as well as more back grounded ones.

A final usage context of progressive construction is what is called by Killie (2008: 80) narrative progressive construction. In the narrative use, this construction views an event as a completed whole (bounded) and emphasizes the action denoted by the participle. The narrative use has some currency in Old English, but is rare in Middle English, and disappears towards the end of that period. Its disappearance, as also suggested by Killie (2008), may well be related to the increase and grammaticalization of the focalized use, whose imperfective aspectuality is clearly at odds with the perfectiveness of the narrative use.

As a whole, both the stative and (past-tense) focalized uses of progressive construction have a clear association with back roundedness. The relation between progressive construction and background has been noticed previously, but its implications for the construction's history are more far-reaching than has been claimed so far.

Since foreground and background organization always reflects the new information and old information; therefore, it can be said that the progressive construction to some degree embodies the information structure.

2.4 Summary

Previous research has accomplished much and laid the groundwork for the current study; however, significant inadequacies exist. Firstly, not all instances of coercion involving achievement verbs and the English progressive construction are discussed. Secondly, there is no comprehensive description of coercion between achievement verbs and the English progressive construction. Thirdly, few studies pay attention to the information structure of the English progressive aspect.

In view of these facts, this paper aims to present a comprehensive picture of the coercion phenomena between English progressive construction and achievement verbs, to explain the

mechanisms underlying these phenomena, and to investigate the information structure of English progressive construction.

3. Theoretical Foundation

3.1 Construction Coercion and Aspectual Coercion

The construction itself has a meaning that may or may not correspond to the meaning of the word hidden within. When the semantic features of the word are consistent with the constructional meaning, no adjustment to the semantic features of the word is necessary, and the meaning of both the construction and the verb is enforced. However, if the term violates the construction's semantic properties, some change must be made to eliminate the incongruity; otherwise, the two will not mix. This method of eradication is referred to as "coercion" which has been described variously by various authors.

It is defined by Goldberg (1995: 238) as the process of transforming the verb's meaning in order to make the entire structure more coordinated. According to De Swart (1998: 360), coercion is both syntactically and morphologically imperceptible and is guided by "implicit contextual reinterpretation mechanisms prompted by the need to resolve semantic disputes." Taylor (2002: 589) describes construction coercion as "a phenomena in which one unit coerces another unit's specification, which can occur at both the semantic and phonological levels."

Michaelis (2004) organizes verbs and verbal phrases into six aktionsart classes, including state, state phase, homogeneous activity, heterogeneous activity, attainment, and accomplishment, and suggests type-shifting via explicit and implicit type-shifting. The latter is compelled and is employed to resolve conflicts between constructional and lexical meanings. Additionally, she suggests "the Override Principle" to resolve conflicts between grammatical features and verb meanings, as well as to explain the source of coercive effects associated with constructions that do not invoke specific lexical items (Michaelis 2004: 25).

According to De Swart (2000: 7), a "aspectual reinterpretation occurs when an eventuality description fails to satisfy the input requirements of an aspectual operator." This aspectual reinterpretation, dubbed aspectual coercion, corrects the mismatch between the eventuality of a verb and the input need. Michaelis (2004) employs the theory of aspectual coercion to study the English perfective and imperfective constructions, i.e., the English progressive construction. Michaelis (2004: 36) asserts that "aspectual operators like as frame and frequency adverbials, the progressive, and the perfect ensure that they receive the appropriate situation-type arguments." She subcategorizes constructions into two types: aspectual concord and aspectual shift, the latter of which involves aspectual shift, also known as aspectual coercion.

Both the English progressive construction and the English perfect construction are aspectual shift constructions which will convert the lexical aspect of the verb when there is conflict.

3.2 Classification of Lexical Aspectual Types

Vendler (1967: 180) distinguishes four categories of verbs: state, activity, accomplishment, and accomplishment. They are classified into three binary semantic categories (Mourelatos 1981: 201-202), which include stative vs. dynamic, durative vs. punctual, and bounded vs. unbounded (telic vs. atelic). However, this categorisation has flaws. To begin, it ignores some circumstance types that do not fit well into the four categories. Second, it disregards distinctions within the same category. While both terms refer to "activity," the verb walk refers to the action of alternating two legs in order to move, whereas the verb speed refers to a progressive increase in pace, signifying an incremental shift.

Croft (2012) employs a two-dimensional geometric analysis comprised of a time dimension (t-dimension) and a qualitative state dimension (q-dimension). The t-dimension denotes the duration of the event in time, whereas the q-dimension indicates whether the event comprises state change. He also analyses lexical aspectual kinds using a two-dimensional representation of aspect in which the horizontal axis is the t-dimension and the vertical axis is the q-dimension. The example of the aspectual structure of seeing event is illustrated in Figure 1. (Croft 2012: 53).

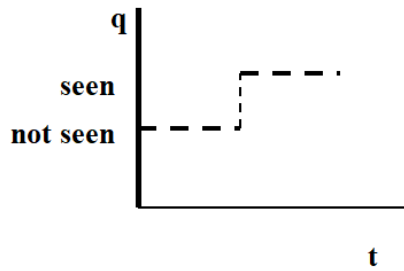


Figure 1: The two-dimensional representation of aspect

“Time is a continuous dimension. The qualitative state dimension may or may not be continuous, depending on how the event’s qualitative states are described (which, in turn, is determined by how the lexical item interprets the event)” (Croft 2012: 53). There are just two qualitative states associated with event witnessing: not seeing and seeing. Thus, the q-dimension of vision is composed of only two points.

Croft (2012), after studying verbs in both dimensions, suggests a more extensive taxonomy of lexical aspectual kinds consisting of eleven subcategories under Vendler’s (1967) four titles and a visual representation for each.

Croft categorizes events into directed or undirected change based on their qualitative states at their start and end. For all directed modifications, the endpoint is defined as a point on the q dimension that is greater than the starting point’s point. The endpoint and beginning point of all undirected modifications are represented as the same point on the q dimension.

Croft (2012) divides states into four subtypes: transitory, acquired permanent, inherent permanent, and point. Figure 2 illustrates the concepts. The standard for classifying states is based on the duration of the state.

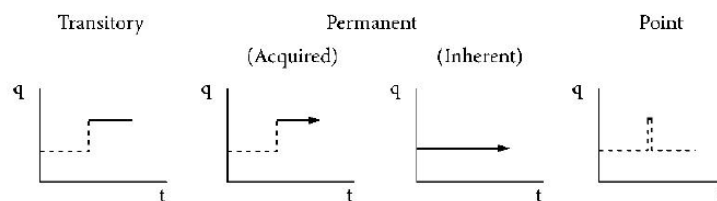


Figure 2: Four kinds of states (Croft 2012: 58)

Three sorts of accomplishments are distinguished: reversible directed accomplishments, irreversible directed accomplishments, and cyclic accomplishments. Croft (2012: 59) observes that reversible successes produce transitory, thus reversible, result states, whereas irreversible achievements produce permanent, thus irreversible, result states. Both reversible and irreversible successes are aimed towards achieving a state that is distinct from the initial state, represented by two points on the q-dimension. Cyclic accomplishments are referred to as “semelfactive” by Smith (1991). (for example, squeak). They are undirected, as they will revert to their initial condition upon completion, and so there is only one point on the q-dimension.

Activities can be classified into directed and undirected activities based on the changes they entail. A directed activity entails constant incremental change along the q dimension, whereas an undirected activity entails no such change (Croft 2012: 61). This continuous directed change is represented on the two-dimensional graph by an oblique line. Undirected action does not involve incremental progress and might be thought of as a series of cyclic accomplishments.

Croft divides accomplishment into two categories: incremental accomplishment and no incremental accomplishment. While incremental accomplishments and directed activities both involve incremental change, incremental accomplishments have a logical endpoint. Three steps comprise an incremental accomplishment: the inception phase, the completion phase, and the directed change phase. Additionally, a no incremental accomplishment consists of three phases: the inception phase, the phase of undirected change, and the phase of completion. According to Croft (2012: 63), there is no monotonic progression from the rest state to the result state in the internal structure of a no incremental

achievement, in contrast to incremental accomplishment.

Croft's lexical aspectual classifications are more specific in four ways: To begin, the various scenarios are visualized using two-dimensional graphs with the q-dimension (qualitative state dimension) as the vertical axis and the t-dimension (temporal dimension) as the horizontal axis. Second, Croft categorizes all occurrences as either directed or undirected, based on the qualitative states of the event's endpoint and starting point. Third, he considers the resultant phase when examining accomplishments, which reveals the internal distinctions between various accomplishments. Fourth, he classifies states into four categories based on their t-dimensional differences: point states, transitory states, acquired permanent states, and intrinsic states.

The subcategories of activities and accomplishments will be used to study the characteristics of the English progressive construction with accomplishments.

3.3 Construal Operations

Four categories of constructive operations are distinguished: attention/salience, judgment/comparison, perspective/situatedness, and constitution/gestalt (Croft & Cruse 2004). While other academics (Talmy 1988a, 1988b; Langacker 2008) suggest alternative classifications for construal operation types, Croft and Cruse's is more thorough. As a result, this article prefers to use their categorization.

3.3.1 Conceptual Metonymy

Metonymy is a cognitive process in which one conceptual item is understood via the lens of another conceptual entity that exists inside the same idealized cognitive model (ICM) (Lakoff & Jonson 1980: 30; Lakoff & Tuner 1989: 62). Relatedness and contiguity are critical components of this mental process. There are two significant metonymic relations: part and whole and part and part (Lakoff 1987: 77; Radden & Kövecses 1999: 30-43), which define two subtypes of conceptual metonymy: part-whole metonymy and part-part metonymy. Metonymy of concepts plays a critical function in language and thinking. It is inextricably linked to construal, as it reflects the technique of emphasizing significant entities while leaving the foundation for crucial material implicit (Langacker 2019: 147). Part-part metonymy will be used to explain the polysemy of the English progressive construction with achievement verbs in this thesis.

3.3.2 Scalar Adjustment

Scalar adjustment, as proposed by Croft and Cruse (2004), is a construal process classified as "attention/salience." Attention is similar to what Chafa (1994: 26-30) referred to as the focal point of consciousness, which entails human cognitive power. However, there are "natural qualities of events in the observed world that lend themselves to human attention," and these properties are said to "increase the prominence of those phenomena to human attention" (Croft & Cruse, 2004: 47). Visual ability exemplifies attention, a complicated psychological ability. One can focus on a single object or adopt a coarse- or fine-grained view of a scene. Scalar adjustment refers to the process of switching between coarse- and fine-grained views.

The English progressive aspect is regarded as a construction in this article, and the achievement verbs in this construction are analyzed by using Croft's taxonomy of lexical aspectual kinds. The research then tries to use the concept of construction coercion to explain the unusual phenomena of achievement verbs being used in the building of the English progressive aspect, as well as to investigate the process of coercion.

4. Mechanisms of the Coercion of English Progressive Construction on Achievement Verbs

Croft's taxonomy of activities and prototype theory are used to develop a prototype-based category ACTIVITY with the most acceptable members in the English progressive construction. This paper argues that the coercion of English progressive construction should be accomplished by transforming certain accomplishments into activities. To account for the mechanisms of coercion, the relationship between the English progressive construction and the three categories of achievement verbs is analyzed using two construal operations: conceptual metonymy and scalar adjustment. Before delving into the mechanics of the English progressive construction, we'll look at its fundamental implications.

4.1 The Core Meanings and the Information Structure of the English Progressive Construction

4.1.1 The Core Meanings of the English Progressive Construction

“Dynamicity”, “duration”, “incompleteness”, “temporariness”, and “dynamic process” have traditionally been regarded as the primary semantic characteristics of the English progressive construction (Celce-Murcia 1983; Shi 2001; Zhang 2003; Leech 1971; Gavrilovi 2019; Yi 1999; Zhao 1999; Yuan 2002; Liang, Liu, and Fan 2002). However, this article maintains that “duration” and “dynamicity” are the fundamental meanings of the English progressive construction.

The progressive aspect of English is always used to describe temporary situations, whereas the simple tense is used to describe routine or permanent events. For instance.

(4) Her secretary usually types letters for her but for this week she is typing his own letters.

(5) She was reading a book last week.

Clearly, sentences (4) and (5) have the features of temporariness. In sentence (4), her secretary often types his letters, and she is only typing for one week. According to sentence (5), she was reading a book last week and the procedure lasted only that time. However, there are instances in which “temporariness” is not required for the English progressive construction to work.

(6) She is always staying up late.

(7) I’m getting more and more interested in politics.

The circumstances stated in sentences (6) and (7) are not always transient. Sentence (6) expresses the speaker’s discontent with the scenario in which he is frequently late, a circumstance that may persist. In sentence (7) the speaker progresses from a mood of hatred to one of like, and we have no way of knowing when he will come to a halt. As a result, the English progressive construction does not require the attribute of “temporariness.”

In terms of “incompleteness,” the English perfect and progressive aspects are considered as polar opposites, as many scholars believe that the perfect aspect represents a complete occurrence, whilst the progressive aspect denotes an unfinished event. The English progressive aspect is considered as an imperfect aspect from this perspective. However, several observed instances imply that incompleteness is not a necessary characteristic of the English progressive construction. As a result, “incompleteness” is not a semantic property of the English progressive construction but rather a connotation derived from the context. For example:

(8) He’s talking to Blake, her university tutor. (BNC B23 1471)

(9) “She’s swimming across the canal!” (BNC CGJ 1249)

(10) Suddenly she was kissing him and he was kissing her back. (BNC CHF 1415)

(11) Jenny was bursting to say something. “What do you think. Dot?” she asked me. (BNC A3F 3348)

Both sentences (8) and (9) refer to an incomplete event. The action of speaking continues in sentence (8) and does not come to an end. In sentence (9), the woman is in the canal and attempts to swim to the other side. However, the occurrences described in sentences (10) and (11) are entirely self-contained. In sentence (10), the initial kiss is followed by the second kiss, implying that the first kiss has concluded. In sentence (11), the action of bursting to say something is complete, as Jenny’s words imply. In each of the three phrases considered above, the conclusion of the events is inferred by the context in which they occurred. Thus, whether the English progressive construction describes an event is determined by the construction or by the context or the actual circumstance is not a necessary semantic property of the English progressive construction.

The majority of verbs employed in the progressive construction in English are dynamic. As a result, it is necessary to explain the concept of “duration.” Numerous grammar texts contend that the English progressive component can refer to an ongoing process across time or to an action at a particular point in time, as demonstrated by sentences (12) and (13):

(12) At 9:00 p.m., she is still doing his work.

(13) She is walking on the playground.

In sentence (12), the action observed is ongoing at a point of time while the event in sentence (13)

last for a while. Both of them, however, possess the property of “duration.” Due to the limitations of human perception, it is impossible to perceive an absolute moment in time. Additionally, there is no absolute point of time in actuality, as time can be broken into smaller units, which can be further divided. Although we use the time stamp “9:00 p.m.” to confine the action to a specific time period, the action itself is durational in nature, as we know that it cannot cease abruptly when the clock strikes 9:01 p.m. and may continue for some time. Thus, sentence (13) describes a circumstance in which she is performing his duties, which may last for as little as one second or as long as one hour. This helps to explain why we use progressive phrases in English to describe images or photographs. Time expressions such as “9:00 p.m.” function as cameras, capturing only a portion of a dynamic, continuous event. As a result, “duration” and “dynamicity” can be viewed as the English progressive construction’s defining characteristics.

4.1.2 The Information Structure of the English Progressive Construction

Petré (2015: 39) notes that progressive construction falls into four broad categories: stative, durative, focalized, and narrative. English progressive construction plays a different role in the structuring of the foreground and background in various settings. Semantically, the construction signifies a (often transient) property of a non-agentive subject. Notably, this architecture lacks a progressive characteristic in this application. It is completely stative in the sense that every step of the circumstance is identical. In this case, occurrences of stative progressive construction tend to exist in the background of the narrative discourse and are not directly related to the primary action or plot line (Petré 2015: 39).

When a progressive structure possesses a durable aspect, it becomes more difficult to interpret in terms of grounding. Progressive construction is more verbal and process-oriented in a durative setting than it is in a stative context. Because regulated effort is required to maintain the state depicted by progressive construction, the subject of progressive construction is agent-like. It performs an activity for a specified amount of time, which is either explicit or implied in the context. The durability of co-texts does not appear to be associated with back roundedness.

As a result of this, it may be deduced that the English progressive construction, whose fundamental meanings are “duration” and “dynamicity,” can be either foregrounded or backgrounded. In other words, the information structure bundled by progressive English information is not entirely obvious, and it varies according to circumstance.

4.2 The Prototype-based Category Activity

4.2.1 The Necessary Property of the English Progressive Construction

Although Croft employs a more detailed description and defines two types of activities: directed activities and undirected activities, some differences among various activities are still not highlighted. Given this, we compare two sets of English progressive sentences which describe distinct types of activities to determine the differences:

- (14) a) They were walking towards her, his hands outstretched. (BNC A62 530)
 b) The ice of the South Pole is floating -- and its melting will make no difference to overall sea levels. (BNC AMS 1712)
 c) A sinister white vapor was floating over the autobahn. (BNC ARK 2265)
- (15) a) The horses were slowing down. (BNC C74 3210)
 b) The cargo was slowing. (BNC EFJ 287)
 c) The daylight sludge is darkening, and it is time they will be allowed back in that depressing hole. (BNC H9M 472)

All of the sentences are concerned with ongoing activities. The first group of sentences refers to undirected activities that do not involve progressive changes, whereas the second set of sentences refers to directed activities that involve a rise in the magnitude or degree of the change (for example, the slowing down of speed). Without a doubt, the first group of sentences differs from the second group of sentences in terms of the types of alterations. However, there are distinctions between the three sentences in each category.

In words (14a), the agent controls the undirected action walking since he initiates it and can stop it at any time. In sentence (15a), the situation is identical in that the horse has the ability to control the

intended activity by slowing down. In sentence (14a), the scenario is different than in line (14b), because the ice cannot control its floating and a third component, the climate, regulates this behavior. In phrase (15b), the driver initiates and controls the train's slowing down, not the train itself. There is no control over the acts in both words (14c) and (15c), and these two sentences conform to Croft's two sorts of activities: undirected activity and directed activity. The comparison of the two groups reveals a third attribute of the category activity: control over the activity, which Croft & Cruse propose to call "causal control" (2004: 289). It can be subdivided further into internal and external causal control. The former originates with the performer of the action, whilst the latter is held by the entity that influences the performance.

In summary, the category activity encompasses three properties: dynamicity, duration, and causal control, yet neither causal control nor dynamicity are required for the English progressive construction to exist (Croft & Cruse 2004: 39)

4.2.2 Prototype-based Category for Activities

Due to the fact that the primary attributes of activity are length, dynamicity (both directed and undirected), and causal control (both internal and external), activities that exhibit all three characteristics serve as the prototype. Four patterns of activities covering all three features are developed based on the primary properties: directed activity (+internal causal control), directed activity (+external causal control), undirected activity (+internal causal control), and undirected activity (+external causal control).

To demonstrate which pattern is the prototype for the category activity, this article collects corpora from BNC and discovers that there are 527 distinct head verbs for undirected activity, but only 75 for directed activity. The asymmetry demonstrates the widespread usage of undirected activity.

Dynamicity means the presence of change, not its overall tendency, implying that change of an increasing or decreasing degree is a particular type or divergent dynamic process.

(16) Jim is standing on the ground.

(17) The statue of Tom Paine is standing at the corner of Kirkland and College, and nobody thinks the deadlocked City Council will ever find a proper place for it. (Goldsmith & Woisetschlaeger 1982: 84)

In sentence (16), the subject *Jim* can decide to continue or terminate this situation, hence there is an internal causal control. In sentence (17), the monument cannot decide to stand longer or not and its position is selected by City Council, hence there is an external causal control from City Council. It illustrates that events with external causal control are viewed as unusual situations so that researchers have trouble in understanding them.

Therefore, we shall adopt undirected activity (+internal causal control) as the prototype pattern of activities. The network of the prototype-based category activity is depicted in figure 3.

The large ellipse denotes the prototype-based category activity, which each circle represents. As illustrated in Figure 3, this category has eight distinct patterns of activities, with the prototype undirected activity (+internal causal control) denoted by a bold circle. Three properties of category activity apply to the prototype: internal causal control, duration, and undirected dynamicity. Apart from the prototype, other less prototypical patterns of activity include undirected activity (+external causal control), undirected activity, directed activity (+internal causal control), directed activity (+external causal control), directed activity, state (+internal causal control), directed activity, state (+external causal control), directed activity, state (+internal causal control), directed activity, state (+external causal control). State (+interior causal control) is less archetypal than the prototype since it possesses only two fundamental properties: duration and internal causal control. Additionally, state (+external causal control) contains two properties: duration and external causal control, which can be thought of as a deviated causal control, making it a fringe member of the category activity.

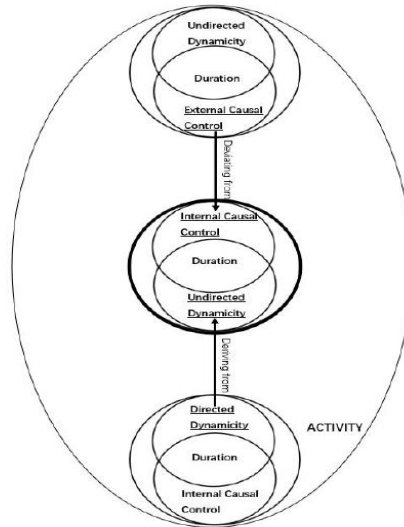


Figure 3: The network of the prototype-based category activity

Undirected activity (+external causal control) also possesses all three of these traits, but its causal control property is of the external type. As a result, it is not as archetypal as the prototype. Undirected activity is a member of the peripheral since it possesses only two properties: undirected dynamicity and endurance. While directed activity (+internal causal control) possesses three of the prototype's qualities, it is less prototypical than the prototype due to its deviating dynamicity: directed dynamicity. Directed activity plus external causal control is less archetypal than directed activity plus internal causal control since it includes a deviating causal control: external causal control. Directed activity is a tangential member of ACTIVITY since it possesses just two traits, one of which is a deviated dynamicity: directed dynamicity.

Then, using Croft's two-dimensional representation, various figures are used to depict these members of the category ACTIVITY. Internal causal control is shown by the arrow with a solid line, whereas external causal control is represented by the arrow with a dotted line. Figure 4 depicts the prototypical member of ACTIVITY, undirected activity (+internal causal control), the less prototypical member, undirected activity (+external causal control), and the peripheral member, undirected activity without any causal control.

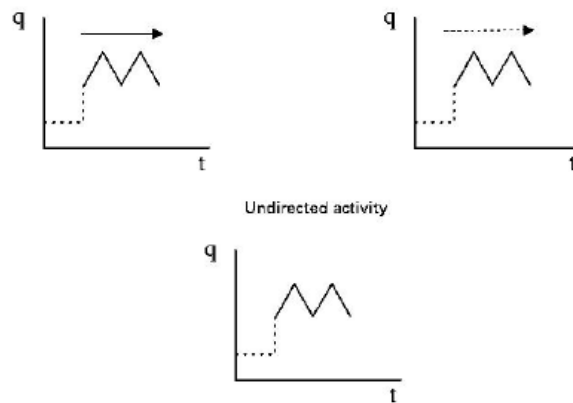


Figure 4: Three types of undirected activities

Three directed activities in prototype-based category activity are represented in figure 5.

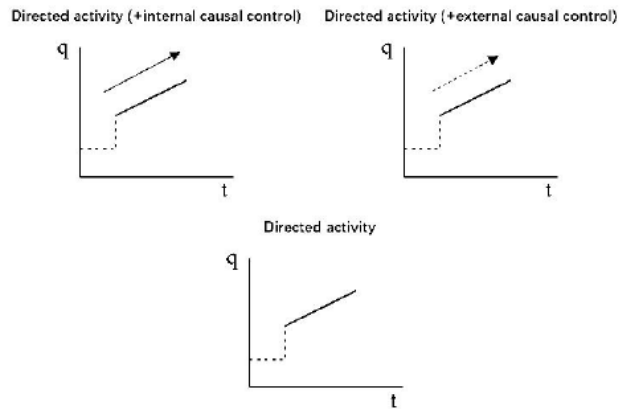


Figure 5: Three types of directed activities

State (+internal causal control), less prototypical and state (+external causal control), periphery in the category activity are represented in figure 6.

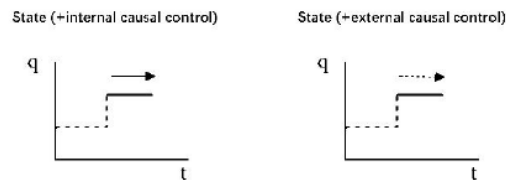


Figure 6: State (+internal causal control) and state (+external causal control)

4.3 Scalar Adjustment and Conceptual Metonymy as Mechanisms of Construction Coercion

The English progressive construction can convert various lexical aspectual types into activities classified under the prototype-based category activity, which means that it can coerce verbs embedded in eight patterns; additionally, the English progressive construction with achievement verbs has multiple interpretations. The following section will examine the process of coercion through the use of two construal operations: scalar adjustment and conceptual metonymy.

4.3.1 Coarse-grained Scalar Adjustment on Time Dimension

The duration of our observation of an event has an effect on what we perceive. When time is insufficient to cover all aspects of an event from beginning to end, we will learn more about the event and observe how it is unfolding within this time frame; on the other hand, when time is insufficient to cover all aspects of an event from beginning to end, we will learn more about the event and observe how it is unfolding within this time frame; on the other hand, the details of each event will be ignored and each event will be conceptualized as a point in time dimension. In the former case, a fine-grained scalar adjustment is used on the time dimension, whereas in the latter case, a coarse-grained scalar adjustment is used on the time dimension (see figure 7).

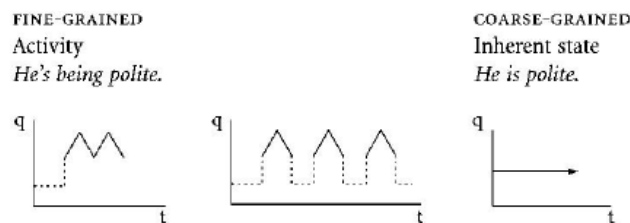


Figure 7: Scalar adjustment on time dimension (Croft 2012, p. 96)

By employing coarse-grained scalar adjustment on the time dimension, we may observe not only the repeated events but also the underlying trend. When the time interval between occurrences is considerable, the majority of the details are lost, and the events are represented as repeated beginnings and endings, which are represented in the two-dimensional representation as two points in q-dimension occurring alternately. When time is limited, we can only concentrate on a particular event and cannot

anticipate what will occur beyond this time period. When the time period is extended, we may witness the occurrence of multiple events and the overall trend of the change, such as the steady increase in the degree of the change. There are two examples that illustrate these two scenarios.

(18) The dancers are jumping up and down, no comparison to our foxtrots or waltzes. (BNCC71 2373)

(19) That's why more and more people are renting dishwashers. (BNC AGX 267)

In sentence (18), the repeated events of dancers' jumping up and down are observed when we are dancing foxtrots and waltzes. According to our understanding of daily life, a single movement of jumping up and down can be completed in seconds, which is significantly less than the time required for waltzes or foxtrots; thus, the scope of time is rather broad, implying the use of a coarse-grained time adjustment. Under this coarse-grained construal of time, the dancers repeated hopping up and down are conceptualized as repeated beginnings and endings that are portrayed on Croft's two-dimensional depiction as an undirected action as a whole. Additionally, these distinct jumping up and downs are subject to the dancer's subjective control, allowing the entire event to be coerced into the pattern of undirected activity (+internal causal control), the prototype of category ACTIVITY. Coercion is depicted in Figure 8:

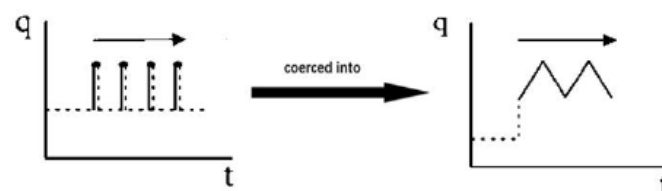


Figure 8: Coercion of sentence (18)

The time span in sentence (19) is months or years, which is far greater than the time required to hire a dishwasher. As a result, a coarse-grained scalar adjustment is made on the temporal dimension. Unlike phrase (18) which merely expresses repetition, the expression more and more people in sentence (19) imposes a meaning on this sentence of an overall rise in the degree of change (from not renting to renting). As a result, phrase (19) has the sense of an overarching trend that is controlled by action takers, and hence is represented as figure 9:

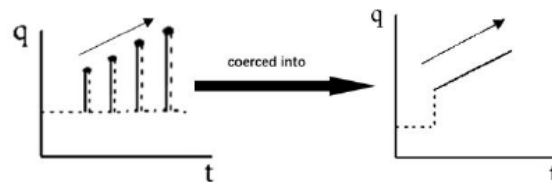


Figure 9: Coercion of sentence (19)

When a coarse-grained scalar adjustment is made to time, the English progressive construction with an achievement verb takes on the sense of repetition or an overall trend, depending on the context. Under this case, the situation denoted by the accomplishment verb will be forced into a directed or undirected activity (not necessarily these two activities in these two examples) in the prototype-based category activity based on the real context and causal control.

Figure 2 Four kinds of states (Croft 2012: 58) When the observing time is less than the event time, we see an ongoing process from a progressive phrase that is dynamic, durable, and unfinished. The scenario described by an achievement verb, on the other hand, is timely. According to Wang (2013), a punctual change can be used to refer to its preceding phase via part-part metonymy, which is the process by which the English progressive construction on achievement verbs is coerced.

However, it's worth noting that not all achievement verbs can refer to the phase immediately before them. If and only if the phase is a member of the prototype-based category ACTIVITY, the English progressive construction can force the achievement verb into this phase. BNC provides three examples:

(20) "This man is dying," Doctor Oxford shouted. (BNC B8K 874)

(21) "It's bursting!" yelled Jim. (BNC BFG 3427)

In sentence (20), the achievement verb die is punctual but has a dynamic durative preceding phase: a preparatory stage as an undirected activity (+external causal control), which is illustrated in figure 10:

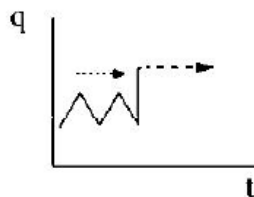


Figure 10: Dynamic durative preceding phase

The graph depicts the punctual change as a vertical line, while the preliminary stage is a zigzag line with a dotted arrow above. In two-dimensional graphs, the bold line is utilized to emphasize the described components. As illustrated here, the achievement verb die denotes the punctual transition from not dying to dying, which is depicted in the left-hand graph by a bold line. The preliminary stage of death is an involuntary action that is influenced by external events such as disease and injury. The progressive statement is dying refers to this dynamic durative preparation stage via part-part metonymy. The bold line in the left-hand graph represents what the accomplishment verb die denotes, whereas the bold zigzag line in the right-hand graph denotes what the expression is dying denotes. The black arrow with the phrase “coerced into” alludes to the coercion of English progressive construction via part-part metonymy in sentences (20).

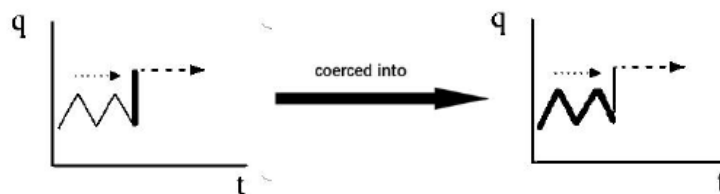


Figure 11: Coercion of sentence (20)

Sentence (21) is stated as Jim notices that a large worm’s corpse is growing in size and is about to burst. Although the worm bursts promptly, the preceding phase indicates an increase in size that can be viewed as a preparation stage. The worm’s growth increase is a directed action (+external causal control). Figure 12 illustrates this preliminary stage and the punctual change: Sentence (21) is stated as Jim notices that a large worm’s corpse is growing in size and is about to burst. Although the worm bursts promptly, the preceding phase indicates an increase in size that can be viewed as a preparation stage. The worm’s growth increase is a directed action (+external causal control). Figure 12 illustrates this preliminary stage and the punctual change:

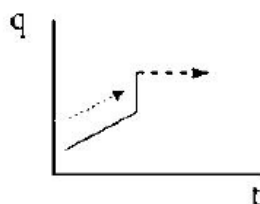


Figure 12: Punctual change in preliminary stage

The transitory phase is depicted in the graph above as a vertical line along the q-dimension, whereas the preparatory phase is depicted as an angled line with a dotted arrow above. As seen by the two-dimensional graph, this preliminary stage falls under the category ACTIVITY. Thus, as seen in the following depiction, the English progressive construction can coerce this punctual event erupting into the prior dynamic durative process: a directed activity (+external causal control).

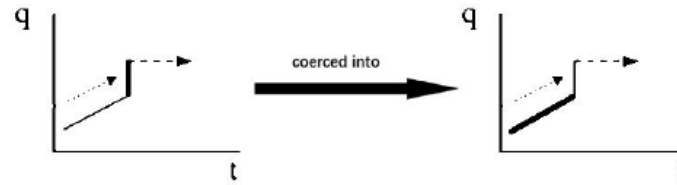


Figure 13: Figure 11: Coercion of sentence (21)

In summary, when a fine-grained scalar adjustment is made to time, the English progressive construction coerces the punctual event signified by an achievement verb into the phase before it. Under these circumstances, the English progressive construction will construe the term “plan” or “preparatory stage” in accordance with the prior phase’s pattern. If the preceding phase is a state (+internal causal control) or a state (+external causal control), the English progressive composition with the achievement verb bears the meaning of plan. If the preceding phase is one of the category’s other six members, the English progressive construction with the achievement verb will have the meaning of preparatory stage.

Detailed account for the coercion of English progressive construction on achievement verbs and the different interpretations are shown in figure 14:

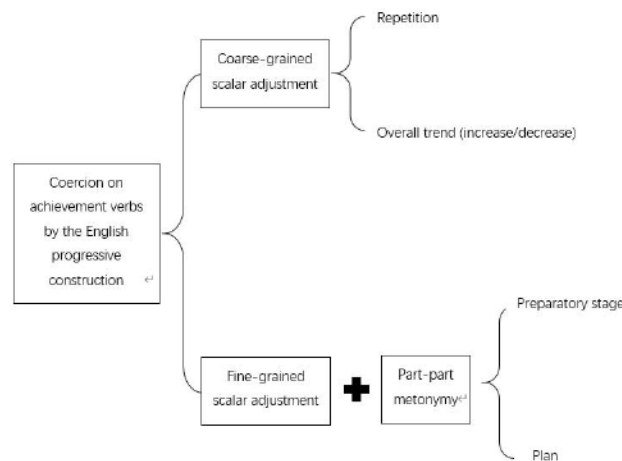


Figure 14: Mechanisms of the coercion of English progressive construction on achievement verbs

5. Conclusion

Based on Croft’s lexical aspectual types and two-dimensional representation, this paper makes a study on the coercion of English progressive construction on achievement verbs by applying a prototype-based category ACTIVITY and two construal operations: scalar adjustment and conceptual metonymy as the mechanisms of the coercion. According to the analyses in the previous chapters, the major findings are illustrated as follows:

- (1) In English, the progressive construction coerces an achievement verb’s aspectual type into an activity that falls under the prototype-based category activity.
- (2) Scalar adjustment and conceptual metonymy are the ways through which the English progressive construction is coerced when it comes to achievement verbs.
- (3) Coarse-scalar adjustment contributes to the interpretation of repetition and the interpretation of overall trend, and the synergy of fine-grained scalar adjustment and part-part metonymy can count for the interpretation of preparatory stage and the interpretation of plan.
- (4) Although progressive construction is used to describe a variety of information structures in a variety of contexts, given that the core meanings of English progressive construction are “duration” and “dynamicity”, it can be inferred that English progressive construction can be either foregrounded or backgrounded. In other words, the information structure provided by English progressive information is not entirely clear, as it is very context-dependent.

Acknowledgments

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