

Considering the range of usage of *to*-infinitive compared with dangling participles

Ayaka Hiroshige

Abstract

Generally, *to*-infinitival clauses at the beginning of sentences are used to express purpose. However, how about some idiomatic phrases like “*to put it simply*”? Does it mean ‘for someone to put it simply’? Actually, it does not. “*To put it simply*” has a special meaning, ‘condition.’

In this paper, we consider this special meaning of *to*-infinitives and reveal the range of their usage. To find it, we refer to dangling participles, also used as idiomatic phrases like “*judging from*.” Dangling participles and idiomatic *to*-infinitives look similar, but the former is used not only in idioms but also in other ways, for example, in the scenario of a novel. This is because dangling participles are based on conceptual overlap (Smith and Escobedo 2001: 559) which is the core meaning of *-ing*, so the range of the usage is wide if the whole sentence can meet the condition.

On the other hand, *to*-infinitives do not have conceptual overlap, rather, they express conceptual distance (Smith and Escobedo 2001: 556) By highlighting this aspect, *to*-infinitives cannot be used in the same way as dangling participles. Only usage they share is the conditional one, like “*to put it simply*” and “*putting it simply*,” but the frequency of *to*-infinitives is much higher than dangling participles. This is because *to*-infinitive’s core, conceptual distance, matches the conditional usages.

At the end of the discussion, the difference between *to*-infinitives and dangling participles is revealed by comparing their properties. Based on their core meanings, *to*-infinitives can describe ‘purpose’ and ‘condition,’ while dangling participles show ‘condition’ and the other meanings like a scenario.

1. Introduction

In English, there is a grammatical mystery as in the following examples.

(1) ?To see the procession, I put the child on my shoulders.

(Quirk et al. 1985: 1122)

(2) To say the least, their techniques are old-fashioned.

(Quirk et al. 1985: 1122)

Both examples have *to*-infinitival clauses at the beginning of the sentences in common, but only example (2) seems acceptable semantically. What is the difference between these examples?

To reveal the mystery, it would be better to compare them with similar examples, participial clauses. Participial clauses are generally at the beginning of the sentences, but some of them are not acceptable for some reason, as follows:

(3) a. #Jogging through the park, a brilliant idea suddenly came to me.

b. #[since] seeing her off at the station, life has been dreary and unbearable.

(Declerck 1991: 463)

According to Quirk et al. (1985), such expressions are considered to be errors because the subjects of the subordinate clauses are not identified. However, there are sentences which can in some cases be accepted and considered as idioms, as follows:

(4) Judging from President Hussein's latest statement, the threat of war in Kuwait is not likely to decrease soon.

(Declerck 1991: 463)

In example (4), the subject of the subordinate clause is not the same as the main clause, but the idiomatic sentence is acceptable. We still find some acceptable examples, such as (5), though they are not idiomatic like (4):

- (5) Leaving the bathroom, the immediate lobby is fitted with a pair of walnut wall cabinets.

(Hayase 2011: 98)

Example (5) is also strange because the agent of '*leaving the bathroom*' is not '*the immediate lobby*'. Generally, the subject of clauses should be identified from the sentence, but the subject of the subordinate clause in (5) is unidentified. Nevertheless, it can be accepted, though it is not an idiomatic sentence like (4). Such participles are known as 'dangling participles,' and clauses containing dangling participles are 'dangling participial clauses (Quirk et al. 1985: 1123).'

Actually, the mystery of dangling participial clauses is mostly solved by various previous studies. Following the property of present participles, dangling participles can be accepted, due to their temporal character (cf. Section 2.2). However, how about *to*-infinitival clauses, such as examples (1) and (2)? This mystery has not been solved yet. Why can we consider example (2) to be a good example? What exactly differs between the rules of dangling participles and *to*-infinitives?

The answer to these questions can be found by comparing the rule of dangling participles. Therefore, this paper mainly considers *to*-infinitive constructions. This paper is structured as follows: Section 2 refers to previous studies of participles and *to*-infinitives. Section 3 considers the range of usage and meaning of *to*-infinitives compared with dangling participles. Section 4 is the conclusion of this paper.

2. Previous studies

2.1 The definition of 'participle' and 'to-infinitive'

First, what is 'participle'? What is 'to-infinitive'? According to Langacker (2008), both participle and *to*-infinitive are derived from verbs through summary scanning, and they lack temporal profiles, unlike verbs. Summary scanning means to scan all the component states as one would in a multiple-exposure photograph (Langacker 2008: 111). Generally, the component state of process is understood sequentially along a temporal axis. However, in summary scanning, "they are mentally superimposed, resulting in their simultaneous activation" (Langacker

2008: 111). Because participles and *to*-infinitives take summary scanning, they describe nonprocessual relationships, while verbs describe processes in terms of Cognitive Grammar (Langacker 2008). The non-temporal property is common between them; however there are some differences.

According to Langacker (2008: 120), ‘participle,’ particularly ‘present participle,’ “takes an ‘internal perspective’ on the verbal process,” and also “imposes a limited immediate scope (IS) in the temporal domain.” Immediate scope cuts the beginning and the endpoint of the described verbal process, so restricted viewing is adopted in present participles. It can be understood via the following example:

(6) A monkey is climbing the tree.

(Langacker 2008: 120)

(6) describes exactly an ongoing event; therefore, it can be considered as using the immediate scope defined above. In addition, the following example of participial clauses also adopts the immediate scope:

(7) Climbing the tree, the monkey lost its grip.

(Langacker 2008: 120)

In addition, Smith and Escobedo (2001: 556) say that “there must be some kind of conceptual overlap between the matrix process and the complement process marked by *-ing*,” so the meaning of *-ing* reflects conceptual overlap.

On the other hand, *to*-infinitives also do not have temporal profiles, but the construal is completely different from present participles, according to Langacker’s definition. Langacker (2008: 120) claims that *to*-infinitives adopt the holistic construal, not the restricted construal by immediate scope in present participles.

Additionally, according to Smith and Escobedo (2001), the conception of *to*-infinitive is based on the source-path-goal schema. The subordinate clause by using *to*-infinitive shows the goal, moreover, futurity, purpose, and intention (Smith and Escobedo 2001: 552).

Based on these definitions, it can be concluded that the construal of the

present participle is restricted by immediate scope, while *to*-infinitives adopt holistic construal. To continue, the next section considers special examples, including (4) and (5) from some previous studies.

2.2 Dangling participle

Before considering dangling participles, we should review the prescriptive guide for participial clauses. Generally, participial clauses are called *supplementive clauses*; this means *free adjuncts*, as follows:

- (8) a. Putting down my scissors, I stood up from my chair and answered the telephone.
 b. Opening the closet, he took out a bottle of whisky.

(Declerck 1991: 456)

For constructing sentences like (8), it is necessary that “the notional subject of the supplementive clause is the same as the S of the finite clause to which it is added” (Declerck 1991: 456). This is the main characteristic of supplementive clauses.

Participial clauses have another type: *absolute participial clauses*. Next, we should examine them as follows:

- (8) a. The general gone, the soldiers relaxed.
 b. A wounded soldier was brought in, blood streaming down his face.

(Declerck 1991: 461)

Both examples in (9) differ from (8) in terms of the subject. While supplementive clauses have the same subject as the main clauses, absolute participial clauses have their own subject. From these facts, for acceptable participial clauses, the subject of participial clauses is the same as the main clauses; or, if it is not, both subjects should be revealed in the participle and main clauses.

However, dangling participles break such a rule. Let us return to example (4), reproduced below as (10). The subject of the participial clause is not the same

as the main clause, and also it does not have a subject of its own. Nevertheless, the example is acceptable:

(10) Judging from President Hussein's latest statement, the threat of war in Kuwait is not likely to decrease soon.

(Declerck 1991: 463)

According to Quirk et al. (1985), clauses whose subjects are not identifiable (like dangling participial clauses), are called unattached clauses. However, the clauses are acceptable with the following conditions:

- (11) (a) The implied subject is the subject of the clause of speaking, normally *I*.
 e.g. Putting it mildly, you have caused us some inconvenience.
- (b) The implied subject is the whole of the matrix clause.
 e.g. Unknown to his closest advisers, he had secretly negotiated with an enemy, emissary.
- (c) The implied subject is an indefinite pronoun or prop *it*.
 e.g. Being Christmas, the government offices were closed.
- (d) In formal scientific writing, the construction has become institutionalized where the implied subject is to be identified with the *I*, *we*, and *you* of the writer(s) or reader(s).
 e.g. To check on the reliability of the first experiment, the experiment was replicated with a second set of subjects.

(Quirk et al. 1985: 1122-1123)

These rules seem plausible, and the acceptability of the idiomatic example (4) can be explained by the rule of (11a) or (11d). However, acceptable dangling participles do not always follow the rules; as illustrated in (5), as seen in Section 1. The following studies point out certain shortcomings and suggest more plausible conditions for dangling participial clauses.

Yamaoka (2005) notes that dangling participles often appear in novels like this:

(12) He left the office and swayed along through the hallways of Wheat King. Turning a corner, an unexpected mirror greeted him, with an image of himself in the green-and-white polyester suit.

(Yamaoka 2005: 24 from W. Kotzwinkle, *Superman III*, 116)

The second sentence has a dangling participle construction in (12). In the example, the agent of “*turning a corner*” is not “*an unexpected mirror*” in the main clause. It may be “*he*” in the preceding sentence. The example would not be acceptable, if based on the rule for participial clauses: that the subject of participial clauses should be identified with the main clause. In addition, if we adapt the rules of (11) to (12), the sentence is also not acceptable: The subject of the participial clause is not the speaker of the sentence; not the whole of the matrix clause; not an indefinite pronoun; and not the writer and the readers of the story. It is, however, acceptable. According to Yamaoka, the function of dangling participles in novels is to reflect the experience that the subject (protagonist) of the story has just experienced at the time. Therefore, the situation depicted in (12) is that: firstly, the subject, *he*, *turns a corner*; and then, he perceives “*an unexpected mirror greeted him.*” This interpretation allows sentences like (12) to be acceptable. This usage is not included in Quirk et al.’s suggestion.

As with (12), there are some additional examples which cannot be explained by Quirk et al.’s rules in (11). Hayase (2011) comprehensively refers to dangling participles, including those in novels. She examines the prototypes of participle clauses and main clauses from a very large dataset. In her summary, there is “a strong tendency for dangling participial clauses to denote agentive cognitive events, while most of the corresponding main clauses depict states or non-causative events (Hayase 2011: 98).” However, she points out that the event described in the main clause is often independent of that in the dangling participle, as follows:

(13) Leaving the bathroom, the immediate lobby is fitted with a pair of walnut wall cabinets. (=5)

(Hayase 2011: 98)

We cannot semantically identify the relation between the two situations which are described in the subordinate and the main clauses. However, Hayase claims that a conceptualizer always exists in a situation like (13), and therefore we can understand the meaning of (13) as “[**the conceptualizer**] *leaving the bathroom*, [**the conceptualizer will realize/notice/see that**] *the immediate lobby is fitted with a pair of walnut wall cabinets* (Hayase 2011: 98).” As you can see from the explanation, the two situations have a temporal sequence, and this is importantly a key point of acceptable dangling participle constructions. Hayase concludes that dangling participle constructions describe a kind of a scenario:

The agentive situation is expressed as a participial clause, the incidental or ensuing state as the main clause, and the conceptualizer and his perception/cognition remain implicit and have to be inferred. This scenario may be called “cognizance scenario.”

(Hayase 2011: 99)

In addition, Hayase found a function of dangling participles to share the scene described by dangling participial constructions with the hearer. This is Tomasello’s “joint attention.”

(14) Approaching from Sedbergh, the Street turns off to the right immediately after Rawthey Bridge [...]

(Hayase 2011: 102)

The speaker also acts as the conceptualizer in (14) and mentally scans the street. However, here, the whole sentence indicates the generic state. Therefore, “not only the speaker but whoever travels the road ‘from Sedbergh’ will come to the particular street that turns off to the right (Hayase 2011: 102).”

“Joint attention” occurs typically at speech time, so dangling participial constructions also occur frequently in spoken dialogue (Hayase 2011: 102).

(15) Looking back on the twenty-five years of fostering children, is there any one memory that stands out for you?

(Hayase 2011: 102)

In situation (15), the agent of “*looking back on the twenty-five years of fostering children*” may be the hearer rather than the speaker. Hayase (2011: 103) claims that dangling participial constructions are tied to the speech situation by citing Traugott’s (2003) suggestion that dangling participles have an “intersubjective” function.

Based on the discussion above, it can be concluded that dangling participial clauses adopt a cognizance scenario, which is based on conceptualizer’s perceptions, so a conceptualizer should see a situation from the inside by their perception. Also, there must be a temporal sequence between the matrix and subordinate participial clause.

We have so far seen the characteristic of dangling participles. Compared with these studies of dangling participles, we next consider *to*-infinitival clauses, which apparently show behaviors similar to dangling participles.

3. Considering the meaning of *to*-infinitival clauses compared with dangling participial clauses

3.1 The difference in grammatical behaviors

As mentioned in Section 2, both participles and *to*-infinitives express an atemporal relationship derived from verbs, so they behave in a similar way: both are used as adjective, etc. In addition, some dangling participles can be paraphrased in *to*-infinitives: ‘*frankly speaking*’ to ‘*to be frank*’. However, they cannot always be paraphrased to each other. For example, in the case of (16) only a *to*-infinitive is accepted, so it may not be possible to paraphrase it using a participle.

(16) a. *To borrow books from this library*, it is necessary to register as a member of the library. [‘For one to borrow . . .’]

(Quirk et al. 1985: 1122)

b. **Borrowing books from this library*, it is necessary to register as a member of the library.

In (16a), the subject in the *to*-infinitive clause is apparently unidentifiable,

but the implied subject satisfies the condition in (11c) and this sentence is acceptable. The participial clause in (16b) also satisfies the condition. It nevertheless is not acceptable. This is because participles do not have the meaning of purpose, while *to*-infinitives do have them—as described in (16a), which comes from the source-path-goal image-schema lying behind *to*-infinitives as referred to in Section 2.1. This is due to the differing characteristics between participles and *to*-infinitives. While present participles should make a temporal overlap between subordinate and main clauses as described in Section 2.1, *to*-infinitives do not possess this feature. Strictly speaking, (16a) has a temporal order between the subordinate and the main clause; someone registers as a member of the library, and then he will be able to borrow books. However, the temporal relation between the subordinate and main clauses is not an important aspect of *to*-infinitives, so paraphrasing from present participles to *to*-infinitives also cannot be always accepted. It is because *to*-infinitives take a holistic viewing, while present participles show some kind of conceptual overlap. According to Smith and Escobedo (2001: 556), “*to*-marked processes are construed as non-overlapping with (conceptually distant from) the matrix processes,” so they evoke “conceptual distance.” Therefore, the temporal relation between the subordinate (*to*-infinitival) and the main clause seems to be far and the temporal relation of *to*-infinitives is not highlighted. Present (dangling) participles should have a temporal overlap, which takes on an internal perspective, as we have seen in Section 2.1. Particularly, in the case of dangling participles, as mentioned in Section 2.2, they are based on a cognizance scenario, so temporal sequence between the subordinate (participial) and matrix clauses is also important in addition to temporal overlap. Also, in construal of present participles *-ing*, to take an internal perspective means that we construe something subjectively. Smith and Escobedo (2001: 559) show “the possibility that some degree of subjective construal may be also relevant in hypothetical (imagined) overlap verbs.” For example, in the sentence *Mary dreads or avoids doing something* (Smith and Escobedo 2001: 559), there is no objective overlap between *Mary* and the process described in the participial clause. Instead, the overlap is considered to be subjective. Additionally, as mentioned in Section 2.1, there is some kind of conceptual overlap between the subordinate (participial) and matrix clauses, so conceptual overlap is an important aspect of *-ing*. Using

present participles allows us to construe something subjectively and find some conceptual overlap between the subordinate and main clauses, including temporal overlap. Due to the difference between conceptual distance of *to*-infinitive and conceptual overlap of *-ing*, *to*-infinitives have the meaning of purpose, so (16a) can be approved but (16b) cannot. If the *to*-infinitive clause with the meaning of purpose (16a) is replaced with the participle phrase (16b), (16b) does not have overlap between borrowing books and registering, which does not follow the meaning of *-ing* (overlap). Participle clauses like (16b), therefore, cannot have the meaning of purpose.

As can be seen above, it can be concluded that participles and *to*-infinitives have both similar and dissimilar aspects of their grammatical behaviors, and they cannot be regarded as having the same function, so cannot always be paraphrased to each other. In contrast to (16), we do observe the possibility of paraphrasing between '*frankly speaking*' and '*to be frank*'. The next section considers the reason for this paraphrasing and how productive such a paraphrase can be compared with dangling participles.

3.2 The compatibility between dangling participles and *to*-infinitives

To examine *to*-infinitives in more detail, I would like to consider the types of situations in dangling participles described by Hayase (2011). She selects 96 types of verbs as follows (note that those in parentheses are not attested in her study):

(17) *approach, arrive, ascend, bring, choose, classify, come, compare, cross, descend, enter, estimate, examine, fall, feel, get, go, hear, keep, leave, listen, look, lie, move, observe, open, ponder, put, read, return, run, search, see, sit, stand, star, study, suppose, take, talk, think, touch, travel, turn, walk, watch, (annoy, astonish, comfort, creep, cry, dance, discover, drink, drop, eat, enjoy, excite, explain, eye, fear, find, flow, frighten, hit, hold, imagine, irritate, jump, kick, like, love, maintain, miss, motor, perceive, please, ramble, rise, rush, shake, shock, sleep, slip, smile, smell, sound, surprise, taste, terrify, upset, wait, wander, wear, weep, wonder)*

(Hayase 2011: 92)

After all of these verbs are examined by changing to *to*-infinitival forms, it can be concluded that there are no major differences between the verbs observed in dangling participles and *to*-infinitives. The following lists can be shown in over 300 cases in COCA:

(18) *to bring, to examine, to get, to go, to hear, to keep, to look, to put, to read, to see, to take, to think, to find, to maintain*

The number of instances is lower than dangling participles, but there is the same tendency between dangling participles and *to*-infinitives; non-attested examples in *to*-infinitives are mostly the same as those of dangling participles. According to Hayase (2011), attested examples can be divided into five types: cognition, motion, perception, state, and action. Based on this, most of the non-attested examples are not included in the types. However, most of these examples of *to*-infinitives are used as adverbial adjuncts, particularly the meaning of purpose, as observed in (19).

- (19) a. *To examine that question*, we are joined by Phillip Carter.
 b. *To get any view*, he will have to cross the bridge.
 c. *To keep relations between Spain and England strong*, Henry married Catherine after she promised the first marriage had never been consummated, and the Pope granted dispensation from affinity.

(COCA, italics mine)

In (19), each subject of *to*-infinitival clauses can be identified with that of matrix clauses, so they are different from dangling participial clauses in this point. Note, however, that even though the subject of *to*-infinitival clauses is not identified, the uses of adverbial adjuncts can be approved, as follows:

(20) *To explain the background of this political crisis, and the greater geopolitical implications for both Asia and the Pacific*, four questions have been asked and answered.

(COCA, italics mine)

Example (20) is used to express purpose, so the property of its *to*-infinitival clause differs from dangling participial clauses. Actually, in COCA, there are numerous examples whose *to*-infinitival clauses are at the beginning of the sentences, but most of these are used as purpose meanings. Only idiomatic phrases can work as conditional clauses in the same way as idiomatic dangling participles:

- (21) a. *To put it simply*, the Western interest in its intellectual adventure can be summed up in the word, theoretics.
- b. *To take a current example*, George Mason University has a faculty and students, and is a physical place where thousands of people interact with each other in a setting which, at least to an extent in an ongoing quest, is the one of the finest the human race has found to preserve, share, and increase knowledge.
- c. *To get a different view*, Figure 2 shows average consumption per person, using world population estimates by Angus Maddison.

(COCA, italics mine)

(21a) '*to put it simply*' and (21b) '*to take a/an (current) example*' are idiomatic uses, and they may be paraphrased to dangling participles as described in (22), though the number of these will be few.

- (22) a. *Putting it simply*, the Vortex Vault is an impact- and crush-resistant solid-steel bed frame that can be telescoped up within a little over a minute when a tornado is approaching.
- b. *Taking the example of airtravel*, this means no single company or group of companies has the market advantage, throwing things into relative chaos, and there will be a period of limited or no airtravel as production builds up to meet demand.

(COCA, italics mine)

From the cases of (21) and (22), it can be found that only these conditional uses are common between dangling participles and *to*-infinitives. Therefore,

the compatibility between them is extremely low, except for idiomatic phrases. However, in this case, the number of *to*-infinitival uses is higher than dangling participial uses, so that when we use conditional phrases, *to*-infinitives are more plausible than dangling participles.

From the discussion above, most of the *to*-infinitives at the beginning of the sentence are used in the meaning of ‘purpose,’ while dangling participles have more flexible meanings. For example, in novels, they work like a scenario as mentioned in Section 2.2. In using for conditional clauses, both dangling participles and *to*-infinitives are plausible, but the frequency of *to*-infinitives is higher than dangling participles in such cases. The case of dangling participles is based on conceptual overlap, so the participial clauses of (22) can be considered to be related with the processes described in the matrix clauses semantically. Hayase (2016: 26) says that dangling participles have a function to limit the following (matrix) clauses, so in this case, dangling participial clauses determine the attitudes or conditions for describing the matrix processes. Though the acceptability of dangling participles can be explained by previous studies, as mentioned before, the plausibility of *to*-infinitives can be concluded in the following points. Firstly, ‘condition’ is reflected for something imperfective, so it can be considered as something for the future. At this point, conditional clauses reflect one of the *to*-infinitive’s properties: ‘futuraity.’ Futuraity implies the distance from the present, so it also matches up with the *to*-infinitive’s character (cf. Smith and Escobedo (2001)). These facts indicate the reason why *to*-infinitives are more plausible than dangling participles in sentences with conditionals. Based on the above, dangling participles and *to*-infinitives have different properties and meanings from each other, so compatibility between them is limited.

We can summarize the above discussion in Table 1. As mentioned, *to*-infinitives takes a holistic view, so they match for the meanings of ‘purpose’ and ‘condition,’ but the other meanings cannot be predicted. Dangling participles, conversely, show not only the meaning of ‘condition,’ but also more flexible meanings. It is because the property of dangling participles, temporal overlap, can be adopted for the other meanings, e.g. a novel’s scenario.

	The meaning of 'purpose'	The meaning of 'condition'	Flexible meanings
<i>To</i> -infinitives (at the beginning)	○	○ (more frequently)	×
Dangling participles	×	○	○

Table 1:

The range of the usage of *to*-infinitives and dangling participles

4. Conclusion

To conclude, although both dangling participles and *to*-infinitives are derived from verbs, their uses largely differ: dangling participles have a temporal overlap, while *to*-infinitives do not. Dangling participles are approved based on a cognizance scenario, while *to*-infinitives adopt a holistic viewing which does not focus on a temporal relation. Also, one of the *to*-infinitive's core meanings is 'purpose', and *to*-infinitival clauses are generally used with this meaning when they appear at the beginning of the sentence. Therefore, paraphrasing between dangling participles and *to*-infinitives is rarely acceptable.

However, idiomatic uses, particularly conditional uses, can be paraphrased to each other, as mentioned in Section 3. Dangling participles can be explained by a cognizance scenario, but how about *to*-infinitives? The answer could be that the character of 'condition' matches the property of *to*-infinitives: futurity. Such a condition is generally adapted for something imperfective, and 'imperfective' implies the possibility for the future, so on this point, conditional usage and *to*-infinitives can be matched. The reason why the frequency of *to*-infinitival usage is higher than dangling participles in this case is also concluded in the same manner. Accordingly, although dangling participles and *to*-infinitives sometimes can be paraphrased and used with similar meanings, there is a limitation regarding their compatibility.

In this paper, we attested only research data from Hayase (2011), so the number of words is limited. Therefore, in future work, the range of attested words will be further expanded.

References

- Declerck, Ranaart (1991) *A Comprehensive Descriptive Grammar of English*, Kaitakusha, Tokyo.
- Hayase, Naoko (2002) *Eigo Koubun no Category Keisei: Ninchi Gengogaku no Shiten kara* (Category Formation of English Sentences: From the View of Cognitive Linguistics), Eisoushobou, Tokyo.
- Hayase, Naoko (2011) "The Cognitive Motivation for the Use of Dangling Participles in English," *Motivation in Grammar and the Lexicon*, ed. by Klaus-Uwe Panther, Günter Radden, 89-106, John Benjamins, Amsterdam.
- Hayase, Naoko (2016) "Bunshikoubun ga Kensuibunshikoubun ni Narutoki: Komento Seiritsu no Jouken" (When participial constructions become dangling participial constructions: the condition of establishing the comment function), *Gengobunka kyoudoukenkyuu project*, 21-30, Osaka University.
- Langacker, Ronald W. (2008) *Cognitive Grammar: A Basic Introduction*, Oxford University Press.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, Jan Svartvik (1985) *A Comprehensive Grammar of the English Language*, Longman, London.
- Smith, Michael B. and Joyce Escobedo (2001) "The Semantics of *To*-infinitival vs. *-Ing* Verb Complement Constructions in English," *CLS* 37, 549-563.
- Taylor, John R. (2002) *Cognitive Grammar*, Oxford University Press, New York.
- Yamaoka, Minoru (2005) *Bunshiku no Danwa Bunseki: Ishiki no Hyougen Houhou toshite no Kousatsu* (Discourse Analysis of Participle Phrases: Consideration as the Expressions of Perceptions), Eihousha, Tokyo.

Corpora

The British National Corpus (BNC)

The Corpus of Contemporary American English (COCA) English: 570 million words, 2017-present, <https://www.english-corpora.org/coca/>