English Cognate Object Construction:
A Usage-based, Construction Grammar Approach*

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Abstract

The English cognate object (CO) construction like *laugh a nervous laugh* raises intriguing analytic and empirical questions. They include (a) what kind of verb licenses the CO, (b) what is the grammatical status of the CO (including its argumenthood), and (c) what are the semantic/pragmatic contributions of the construction? In answering these questions and to see real usages of the construction, in this paper we have investigated English corpora like the COCA (Corpus of Contemporary American English) and suggest a lexicalist perspective. In particular, we assume that there are two different types of the construction, EVENTIVE-CO and REFERENTIAL-CO, based on the object's referential property. This difference in the referential power leads to many syntactic differences between the two types. In addition, we show that the uses of the CO selecting verbs are much more flexible than the literature has suggested. As a way of accounting for these variations, we sketch a Construction Grammar view in which argument structure constructions, lexical semantics, and constructional constraints are all interacting together to license the construction in question.

Key words: cognate object, COCA, construction grammar, light verb, argument realization

1 Introduction

The English cognate object construction as illustrated by the examples from the COCA in (1) has received much attention from the study of generative grammar (Quirk et al. 1985; Huddleston and Pullum 2002, Jones 1988, Massam 1990 and others):[1]

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[1]The COCA (Corpus of Contemporary American English), freely-available online, is a balanced corpus of American English with 450 million words of text of spoken, fiction, magazines, newspapers, and academic texts. Some of the corpus data here are slightly modified to improve the readability.

(1) a. I **laughed a nervous laugh,** a chirping laugh I had not heard coming from my mouth since junior high school.

b. He's **lived a life** and traveled the world lifting people's spirits, sights, motivation.

c. He **slept a deep leaden sleep**, and dreamed of the submarine.

d. Rachel **smiles a pretend smile** back.

e. They had **danced a single dance** in London, and now they spent an afternoon together.

f. The warrior **died a horrible death** and had been dragged into the pits of hell.

Each example represents modes of non-verbal expression like *laugh* and *smile* or bodily actions like *dance* and *sleep*, including the so-called cognate object. One main property of the construction is that the intransitive verb and the head noun of the object have the same root or are etymologically related.

In understanding the construction, central concerns include what kind of verb licenses the cognate object (CO) construction, what is the grammatical status of the cognate object, and what are the semantic/pragmatic contributions of the construction? This paper, focusing on these questions, discusses main analytic and empirical issues raised by the construction. It examines the results of a corpus search, using the online corpus, COCA (Corpus of Contemporary American English). In particular, we will show that there are two different types of the construction, EVENTIVE-CO and REFERENTIAL-CO. This classification, based on the object's referential property, leads to many syntactic differences between the two types in passivization, pronominalization, and so forth. In addition, we will show that the uses of the CO selecting verbs are much more flexible than the literature has suggested. As a way of accounting for these variations, we sketch a Construction Grammar view in which argument structure constructions, lexical semantics, and constructional constraints are all interacting together to license the construction in question.

2 Grammatical Properties of the Construction

2.1 Two Different Types of the Cognate Object

The CO (cognate object) is morphologically linked to the verb, but with respect to the possibility of selecting an object other than the CO, the construction can be at least classified into two different types, EVENTIVE-CO and REFERENTIAL-CO. Consider the following two different sets of corpus examples:[2]

(2) EVENTIVE-CO

a. He smiled *a lovely smile/*a lovely laugh/*a giggle* and patted me on my shoulder.

[2]The corpus data are only grammatical ones: the ungrammatical expression is our addition.

b. He slept *a deep leaden sleep/*a deep slumber*, and dreamed of the submarine.

(3) REFERENTIAL-CO

a. When he saw her house, he sang *the second song/the second melody*.

b. After the phone call, I danced *a little jig/a little dance* in my living room.

Enough evidence indicates that the object of the EVENTIVE-CO functions as a predicate while that of the REFERENTIAL-CO refers to an individual, leading to many differences. For example, as illustrated here, verbs like *smile* in (2) are different from those like *sang* in (3) in that the former group of verbs licenses only a CO as its object but the latter can select another typical object (see Jones 1988 and Massam 1990 also). This difference also induces a semantic, paraphrasing difference between the two types (Hamada 1996, Ogata 2008):

(4) a. He smiled a lovely smile. $\Rightarrow$ He smiled lovely.

b. He sang the second song. $\not\Rightarrow$ He sang secondly.

As seen here, the EVENTIVE-CO in (2a) can be paraphrased as an intransitive verb with the object's modifier as an adverb, while this is not possible with the REFERENTIAL-CO in (3a). There is thus no entailment relationship between the REFERENTIAL-CO and its assumed intransitive paraphrase with an adverb. This in turn means that modification of the CO in the EVENTIVE-CO is semantically comparable to modification of the verb, but modification of the object in the REFERENTIAL-CO is confined to the object NP. Observe that this difference in the property of the CO also determines the possibility of occurring with a manner adverb (Ogata 2008):

(5) a. *Fred smiled a happy smile strangely.

b. Fred sang a happy song strangely.

As seen in (5a), unlike the REFERENTIAL-CO, when the CO of the EVENTIVE-CO is modified by an adjectival expression, we cannot have another manner adverb. This is because the CO modifier *happy* in (5a) already functions as a manner adverb for the predication. However, no such restriction exists in the REFERENTIAL-CO in (5b) since the CO modifier *happy* here is not interpreted as the manner adverb for the predication.

As such, the object of the EVENTIVE-CO is an eventive nominal while that of the REFERENTIAL-CO is a referential object. This main difference of the CO in terms of the referential property also induces differences in many syntactic phenomena like passivization, pronominalization, topicalization, and so forth (see Massam 1990, Matsumoto 1996, Real-Puigdollars 2008 also). For example, the EVENTIVE-CO in general does not license all these phenomena (data from Massam 1990):[3]

[3]As a reviewer points out, there could be context where the pronoun *it* refers to the CO. For example, in examples like *Fred smiled a silly smile and it made me laugh*, the CO *a silly smile* appears to serve as the antecedent of the pronoun *it*. However, note that this pronoun can also refer to the situation referred by the first sentence as in *Start your day with a smile and it will make you happy.*

(6) EVENTIVE-CO

a. *A silly smile **was smiled**. [Passivization]

b. *Fred *smiled a silly smile* and Sandy smiled **it** too. [Pronominalization]

c. *What did Fred **smile**? [Questioning]

d. ***A silly smile**, Fred smiled. [Topicalization]

e. *Fred smiled **the smile** for which he was famous. [No Definiteness Restriction]

The CO of the EVENTIVE-CO refers to an event or functions as a predicate. This is why it cannot be passivized, pronominalized or wh-questioned. The COCA examples also support this, but yield enough examples of the REFERENTIAL-CO with such syntactic phenomena:

(7) REFERENTIAL-CO

a. During the first year of life, up to **twenty different songs** *are sung* to babies with accompanying movements that build physical skills. [Passivization]

b. Today, we have the freedom to *sing our song* . And **it** will be definitely heard by others. [Pronominalization]

c. **What song** would you like to *sing?* [Questioning]

d. We kind of feel out of control of the situation, actually. But **that first song** , we would *sing it* at each other's shows. [Topicalization]

As observed here, the CO of the REFERENTIAL-CO, referring to an individual, can be passivized or pronominalized. It can also be wh-questioned or topicalized.

2.2 Unergative vs. Unaccusative Dichotomy

One central question in the CO construction is what kind of intransitive verbs licenses the CO construction. The traditional wisdom is that only unergatives are sensitive to the CO construction (see, among others, Massam 1990, Levin and Rappaport Hovav 1995, Macfarland 1995, Mittwoch 1998, Felser and Wanner 2001):

(8) Unergative Restriction:
Only unergative verbs can appear in the cognate object construction.

This simple restriction seems to work well for the contrast in the following:

(9) a. He waved and **smiled a toothless smile** at the girls. (COCA)

b. Al was **singing a Sinatra song** in the shower. (COCA)

c. Afterward she would crawl late to bed and **sleep a bottomless sleep**. (COCA)

(10) a. *The glass **broke** a crooked **break**. (Levin and Rappaport Hovav 1995)

b. *The apples **fell** a smooth **fall**. (Levin and Rappaport Hovav 1995)

c. *The snow **melted** a slow **melt**. (Macfarland 1995)

As seen from the contrast, verbs like *sing, smile* and *sleep* are typical unergatives representing volitional acts of the subject referents or involuntary bodily processes of humans (Perlmutter and Postal 1984, Levin and Rappaport Hovav 1995). These unergative verbs often introduce the CO construction, but unaccusative verbs like *break, fall,* and *melt*, representing nonvolitional events of the subject referents and expressing changes of state/location of these referents, do not occur with a CO.

The Unergative Restriction in (8) seems to get more support, when coupled with the Unaccustivity Hypothesis assuming that the subject of unaccusative verbs is originated in the object position (Permutter 1978). Since the object position of unaccusative verbs, unlike unergatives, is occupied by the theme subject, no CO can appear here (Macfarland 1995). However, counter-examples for the Unergative Restriction seem to exist, as suggested by Kuno and Takami (2004):

(11) a. The tree **grew a century's growth** within only ten years.

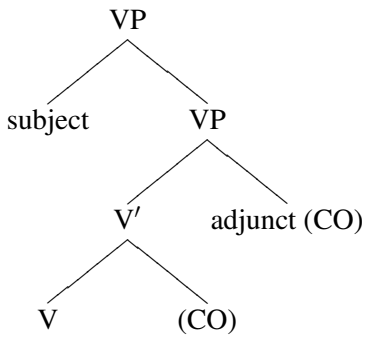
b. The stock market **dropped its largest drop** in three years today.

c. Stanley watched as the ball **bounced a funny little bounce** right into the shortstop's glove.

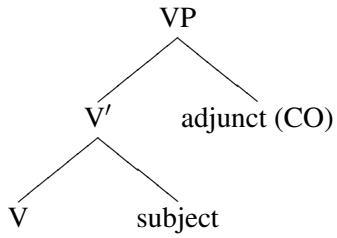
d. The apples **fell just a short fall** to the lower deck, and so were not too badly bruised.

Verbs like *grow, drop*, and *bounce* are taken to be unaccusative verbs, but seem to occur with the CO here. Observing such unaccusative verbs with the CO, Kuno and Takami (2004), refuting the Unergative Restriction, provide a functional account for the license of the CO construction: the object NP must represent a specific state or event that is a subset of the possible states or events resulting from the activity or event. As an effort to save the Unaccusative Restriction from such examples, Nakajima (2006) suggests that the CO of the unaccusative verbs is not an argument, but an adjunct. The central point of Nakajima's way out is based on the following syntactic structures:

(12) a. Unergative:



b. Unaccusative:



Given these structures, unergatives can have the CO either in the object or the adjunct position, while unaccusative verbs can have the CO only in the adjunct position since the subject is in its object position. This three-way classification of the CO construction seems to save the Unergative Restriction, licensing the unaccusative verbs. However, when considering the fact that not all unaccusative verbs can occur with the CO, a question still remains of how to block examples like the following:

(13) a. *The glass **broke a crooked break**. (Levin and Rappaport Hovav 1995)

b. *The actress **fainted a feigned faint**. (Levin and Rappaport Hovav 1995)

c. *She **arrived a glamorous arrival**. (Iwasaki 2007)

d. *Karen **appeared a striking appearance** at the department party. (Iwasaki 2007)

There seems to be no clear syntactic difference between verbs like *grow, drop* and those like *break, faint*: they are all typical unaccusative verbs, but different in licensing the CO. The difference thus seems to be due to other grammatical factors other than syntactic structures like (12).

2.3 On the Status of the CO: Argument or Adjunct?

Together with the controversy over the verb type licensing the CO, there has been no consensus to the status of the CO. The CO seems to display both adjunct and argument properties.

As suggested by Jones (1988) and others, in many syntactic environments the CO behaves like an adverbial expression. The evidence seems to start from basic intuition. For example, as we have

seen in (4), many CO examples can be paraphrased into intransitive counterparts with a manner adverb (data from Jones 1988). In addition, just like adverbial NPs, the true CO do not undergo passivization as we have seen in (6). The impossibility of pronominalization or wh-question also seems to support the adjuncthood of the CO. This is true in particular with the EVENTIVE-CO (Massam 1990).

Contrary to these adverbial properties of the CO, there are also properties indicating that the CO is a syntactic argument, as set forth by Massam (1990) and Macfarland (1995). For example, as no expression can intervene between the verb and its selected object argument, nothing can appear between the CO and its verb (data from Massam 1990):

(14) a. Ben always **runs** (quickly) **that way**.

b. Let Ben **run** (*quickly) **a little run**.

c. Ben **sneezed** (*that way) **a glorious sneeze**.

The argumenthood of the CO receives a further support from the so-called *do-so* test. Consider the following contrast (Macfarland 1995):

(15) a. Chris smiled [a happy smile], and Mary did so, too.

b. *Chris smiled [a happy smile], and Mary did so [a sarcastic smile].

(16) a. Chris danced [a slow dance], and Mary did so, too.

b. *Chris danced [a slow dance], and Mary did so [a fast dance].

Given that the *do-so* includes all the arguments, the contrast here implies that the CO *a happy smile* and *a slow dance* are an argument, not an adjunct.

As briefly reviewed here, the COs in both types display typical properties of the syntactic object, but depending on its lexical properties, the CO may behave like an adjunct or an argument. What we conjecture, as we have hinted here, is that the referential property of the CO plays an important role in determining its argumenthood.

3 Corpus Findings

3.1 Search Methodology

To investigate the authentic uses of the English CO construction, we have searched the COCA (Corpus of Contemporary American English), freely available online. The corpus consists of 450 million words from 1990 to 2012, with contemporary American English data from a variety of registers including written and spoken data.

From the literature, we first selected most frequently mentioned 9 unergative and 8 unaccusative verbs, listed in the following:

(17) a. 9 unergative verbs: live, sigh, dance, dream, smile, sleep, sing, laugh, grin

b. 8 unaccusative verbs: die, fall, grow, drop, bounce, blow, slide, blush

Together with these verbs, we have performed a N-gram search, in particular 5 words-distance from the verb. That is, we extracted the instances where the lemma form of each verb occurs with its nominalized form within the 5 words distance, as illustrated in the following:[4]

(18) a. I've still got to [live] [life] on life's terms.

b. I'm a person of faith, and that does influence the way I [live] *my* [life].

c. In terms of how they actually [live] *their family* [life], it's not so much there.

d. Till then I'd [lived] *a fairly normal* [life], if normal includes some badly drunk years.

Among the instances we obtained from the 5-gram search, we manually eliminated examples like the following.[5]

(19) a. We hunt, we grow, we [live] . [Life] is simple.

b. They have the same optimism that I've tried to [live] *with all my* [life].

Eliminating such, we obtained total 12,282 tokens of the CO examples and have tried to analyze their properties. In what follows, we will discuss the properties of these examples.

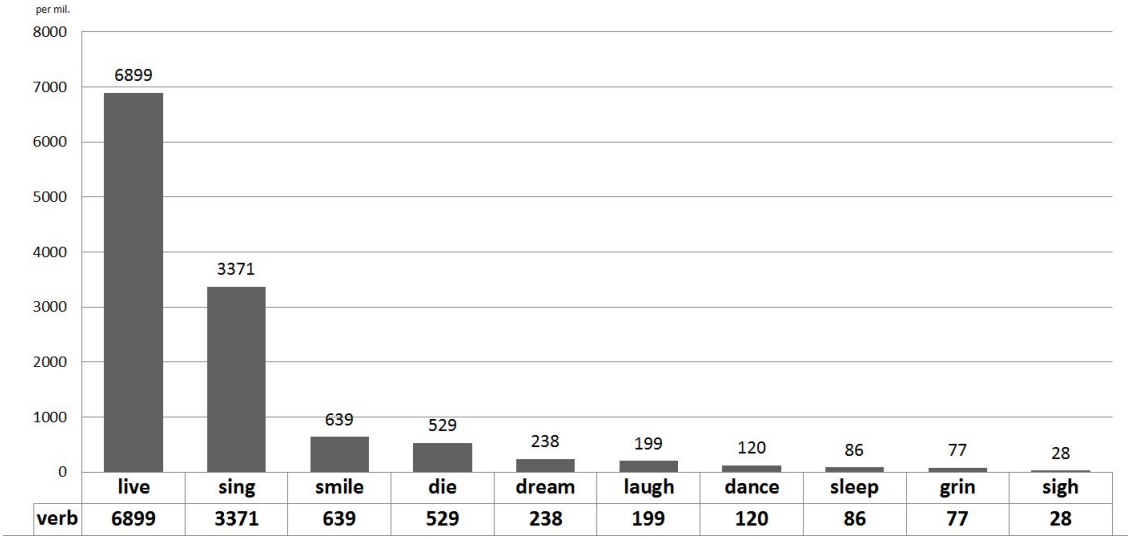
3.2 Findings and Discussion

Among the total 12,282 CO examples, we found from the COCA, the overall frequency of the top 9 verbs is represented in the following figure:

(20) Frequencies of the top 9 verbs with the CO Construction:

[4]The bracket indicates the lemma form of the verb.

[5]The comma also counts as one word in the COCA.



As seen here, the verb *live* has the highest frequency, followed by the verb *sing* and *smile*. When we tease out the frequency into unergative and unaccusative verbs, we have the following table:

(21) a. Frequency of the unergative verbs + CO

verb	live	sing	smile	dream	laugh	dance	sleep	grin	sigh
frequency	6899	3371	639	238	199	120	86	77	28

b. Frequency of the unaccusative verbs + CO

verb	die	fall	grow	drop	bounce	blow	slide	blush
frequency	529	0	0	0	0	0	0	0

What surprised us most in the corpus finding is the frequencies of unaccusative verbs with the CO. Contrary to the literature including Kuno and Takami (2004), the corpus search unexpectedly yields no instances of the CO for the unaccusative verbs. The only exception is the verb *die*. This finding is identical to the one that Höche (2009) obtained from the BNC corpus search. Höche identified 109 verbs combining with the CO but also found out no unaccusative verbs with the CO, except the verb *die*.

In our corpus search, the verb *die* is the fourth in frequency. We have also noted that *die* in the CO construction behaves differently from other CO unergative verbs. One visible difference is that the CO of the verb *die* is often used with the indefinite article or without any:

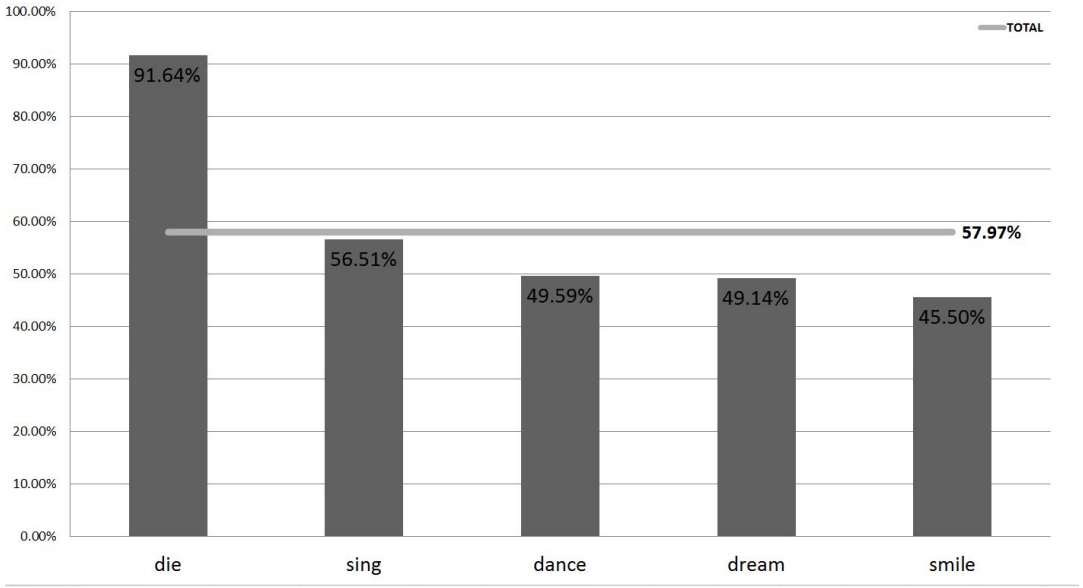
(22) a. I'm not a cockroach, idiot. I'm a beetle. And you're going to *die a real death*. (COCA)

b. Others had *died more-violent deaths* and shambled on with bullet holes in their bloody clothes. (COCA)

c. The Russian government had sent cruel cossacks through villages, taking the survivors away to prison camps where they *died lingering deaths*. (COCA)

This intriguing property is clear when compare the CO of the other verbs. With respect to the frequency of the CO with the indefinite article *a*, the verb *die* has the highest frequency:

(23) Frequency of the Indefinite CO



As seen from the table in (23), about 91% of the CO with the verb *die* is indefinite, while only about half of the CO with verbs like *sing, dance* is indefinite. Given the assumption that the definite NP has more referential power than the indefinite NP (see Borer 1994), we can conjecture that the CO of *die* is preferred to denote an event, rather than an individual. Our corpus examples also indicate that the modifier in the CO is interpreted as manner:

(24) a. They could die *a slow death*, like the Saturday Evening Post. (COCA)

b. How many more Iraqis would *die brutal deaths* if we freed this tyrant? (COCA)

In addition, there are no cases we can passivize or pronominalize the CO of *die*:

(25) a. *A real death was died.

b. *Lingering deaths were died.

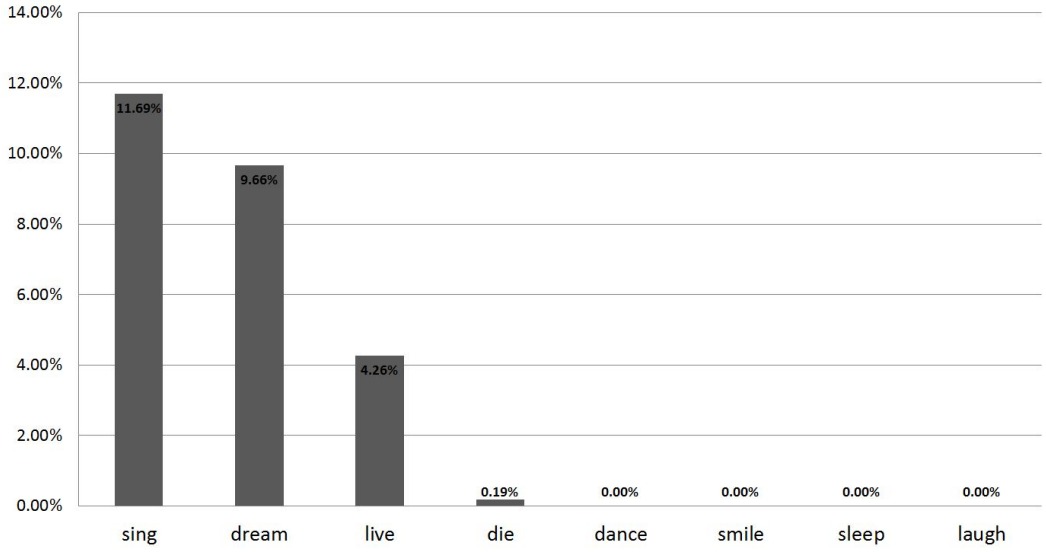
A related finding is that there is a great variation in the property of the CO. That is, the CO of verbs like *live* and *sing* occurs more often with the definite or possessive or even without a modifier, as exemplified by cases like the following COCA examples:

(26) a. Inside we were festive, telling stories and *singing songs*.

b. He might even have been *dreaming dreams*.

The frequency of the CO with no determiner at all is summarized as following:

(27) Frequency of the Bare CO NP:



As seen from the table, we observe a clear contrast between the CO of verbs like *sing, dream* and *live* and that of verbs like *die*. We again conjecture that bare NPs like *songs* have more referential power and are preferred to be used as referring to an individual. This again implies that the CO of verbs like *sing, dream, live* is often used as a referential NP while the CO of verbs like *die* and *smile, sleep* is event-denoting.

4 A Usage-Based Analysis

4.1 Analytic and Empirical Issues

In section 2, we have classified the CO construction into two different types, EVENTIVE-CO and REFERENTIAL-CO, depending on the referential property of the CO. However, note that there is a variation in the referential property of the CO. That is, the referential property of the CO seems to be dependent upon context. As Borer (1994) notes, the non-referential NP does not serve as a pronoun's antecedent:

(28) a. *Kim collected *sand*, and **it** was very clean.

b. Kim collected *some sand*, and **it** was very clean.

(29) a. Mary smiled *a mysterious smile* and **it** was attractive.

b. ??/*Mary smiled *a never ending smile* and **it** was attractive.

In addition, given that the referential object can be promoted to subject in passivization, we can also observe the same verb induces a difference in the passivization (see Kuno and Takami 2004):

(30) a. The last *laugh has now been laughed*, and was it ever a long one!

b. *A sad *laugh was laughed* by Mary at the meeting.

(31) a. A good *life was lived* by Susan. (Rice 1988)

b. *An uneventful l*ife was lived* by Mary. (Jones 1988)

This seems to suggest that the CO of the EVENTIVE-CO type is ambiguous between the referential and eventive, while that of the REFERENTIAL-CO is used as only a referential one. When the CO is used as an eventive, it rather functions as a predicate.

In addition to this, as observed from the literature, there is a variation in the verb types of the CO construction, as illustrated by the following:

(32) a. *The apples *fell a smooth fall*. (Levin and Rappaport Hovav 1995: 148)

b. The apples *fell just a short fall* to the lower deck, and so were not too badly bruised. (Kuno and Takami 2004: 124)

What this contrast implies is that context might coerce certain unaccusative verbs into the CO verb. As our corpus search indicates, the typical CO verbs are unergatives with the exception of the unaccustive verb *die*. The common feature we induce from these verb group is that the subject of these verbs are either a causer or experiencer. This may also explain the contrast in (32). (32a) does not give us a clear status of the subject while (32b), supported by the rich context, the subject has a more clear role of experiencer. We conjecture that even though the verb *die* is a typical unaccusative, its subject can function as an experiencer in the CO construction. Consider the following corpus examples:

(33) a. I walked the ten blocks to Wrigley Field and watched the Cubs **die a painful death** at the hands of the Expos. (COCA)

b. I would **die a horrible death** by suffocation unless I could remove the gag. (COCA)

c. She thought of Helena, wishing her friend had been given this choice, a chance to do something decent instead of **dying a miserable death** at the hands of unforgiving men.(COCA)

All these examples indicate that the subject is either a theme or an experiencer, affected by a causer. For example, the hands and suffocation play the role of a causer, while these subject is an experiencer in the examples.

At this point, it is worth comparing the English CO with another language. Each language has a slight different set of verbs licensing the CO (for some cross-linguistic discussion, see de Swart 2007, Real-Puigdollers 2008, Son 2009 and others). Consider the following attested examples:[6]

(34) a. cengmal chwum-ul cal chwu-nun-kunyo. (Sejong Corpus)
really dance-ACC well dance-DECL
'You dance a dance really well.'

b. cinan-pam-ey kiph-un cam-ul ca-ss-ta. (Google)
last night deep sleep-ACC sleep-PAST-DECL
'I slept a deep sleep last night.'

c. isanghan kwum-ul kwu-ess-ta. (Google)
strange dream-ACC dream-PAST-DECL
'I dreamed a strange dream.'

However, the language does not license examples like the following:[7]

(35) a. *Mimi-ka wucum-ul wuc-ta
Mimi-NOM laugh laugh-DECL
'Mimi laughed a laugh.'

b. *Mimi-ka cwukum-ul cwuk-ta
Mimi-NOM death die-DECL
'Mimi died a death.'

As seen here, Korean counterparts like *dance, sleep, dream* license a CO, but verbs like *laugh* and *die* do not. The possibility seems to be closely related with the uses with light verbs: the expressions *dance, sleep, dream* can be used as a nominal, but these expressions cannot combine with the light verb *ha-ta* 'do':

(36) a. *chwum-hata 'dance-do'

b. *cam-hata 'dream-do'

[6]The Sejong Corpus is a Korean raw corpus composed of written and spoken texts. The corpus, built as the 21st Century Sejong Project y the National Institute of Korean Language, contains 57 million words plus additional 75 millions of already existing electronic texts.

[7]As a reviewer points out, (35a) can be perfect with a modifier to the object as in *khu-n wucum* 'big laugh'. We can also attribute the impossibility of (34b) to the strict application of the UR (unergative restriction) ruling out examples like *die* in Korean. This direction still requires an explanation for why 'laugh' requires an obligatory modifier.

c. *kkwum-hata ‘dream-do’

Meanwhile, each nominal form of the verbs *smile, run, die* has its own light verb to combine:

(37) a. internet-eyse emtanghan wusum-lul cicgo-it-ess-ta. (Sejong Corpus)
on the Internet nasty laugh-ACC make-PAST-DECL
‘You are making a nasty laugh on the Internet.’

b. hwanhan miso-lul cic-ess-ta. (Google)
bright smile-ACC make-PAST-DECL
‘I made a bright smile.’

c. kulaundu wieyse cwukum-ul mac-ta. (Google)
the ground on death-ACC receive-PAST-DECL
‘(he) died a death on the ground’.

Given this language difference, we conjecture at this point that the CO nominal represents an event predication. The language employs the COC only when another simpler way like the light verb construction is not available in expressing the event nominalization:

(38) CO and the Light Verb Construction

In event nominalization, the light verb construction is preferred over the CO.

As also noted by Mittwoch (1998), there are many similarities between the COC and the LVC (light verb construction). Consider the following:

(39) a. gave a groan/a smile; take a nap

b. have a look/make a claim

Just like the CO, the object of the light verb cannot be easily passivized or wh-questioned (Kearns 1988):

(40) a. *A groan was given by the man on the right.

b. *Which groan did John give?

We can attribute these common features to the assumption that both objects have the properties of a predicate, denoting an event. Of course, the CO of the REFERENTIAL-CO can often refer to an individual rather than an event:

(41) sing a song, dance a dance, live a life, dream a dream,...

A song or a dance can be an independent individual, independent of the activities of singing or dancing (see Mittwoch 1998). All these verbs can have a typical object other than a CO, even though they are often used as intransitive:

(42) a. It's that he is *living the dream of every former employee.* (COCA)

b. She *dreamt her father was standing near, in front of her.* (COCA)

c. They each do the movements alone or *sing a new verse.* (COCA)

4.2 A Construction Grammar Perspective

In explaining the properties of the CO construction in question, we adopt the philosophy of Construction Grammar (CG) whose main features can be summarized as follows (see, among others, Goldberg and Jackendoff 2004, Goldberg 2006, Kim and Sells 2011, Michaelis 2012, and Sag 2012):

- All levels of description (including morpheme, word, phrase, and clause) are understood to involve pairings of form with semantic or discourse functions.
- Constructions vary in size and complexity and form and function are specified if not readily transparent.
- Language-specific generalizations across constructions are captured via inheritance networks, reflecting commonalities or differences among constructions.

As we have seen, the COC selects two arguments, but there is a mismatch between syntactic and semantic mapping. That is, in terms of syntax, a verb of the COC is transitive, but semantically it behaves like a complex predicate in which the verb and its object form one predicate.

- The COC is syntactically a transitive construction selecting two arguments where the subject functions either as a causer or an experiencer.
- The CO can refer to an event (EVENTIVE-CO) or an individual (REFERENTIAL-CO).
- The CO represents a resultant state of the activity or the process in question.
- When the CO represents an event, the main verb is used as a type of light verb, forming a type of complex predicate with the object.

One novel idea of the CG is that patterns of argument structure exist independently of lexical predicates. For example, consider the uses of the verb *slice* in different syntactic complementation patterns.

(43) a. Pat **sliced** the bread. (transitive)

b. Pat **sliced** the carrots into the salad. (caused-motion)

c. Pat **sliced** Christ a piece of pie. (ditransitive)

d. Pat **sliced** and diced his way to stardom. (way)

e. Pat **sliced** the box open. (resultative).

In all of these cases, the verb *slice* means to cut with a sharp instrument. It is the argument structure that provides the direct link between surface form and general aspects of the interpretation. That is, unlike the traditional assumption that the verb *slice* has different subcategorization patterns corresponding to each case, its lexical predicate is specified only with the meaning while leaving out the syntactic patterns to argument structure. The verb *slice* thus can combine with various argument structures such as intransitive, transitive, ditransitive, or resultative constructions as long as other constraints are not violated.

(44) a. Transitive construction: <causer, []>

b. Ditransitive construction: <causer, [], []>

Going back to the CO construction, we believe that the construction is a subtype of transitive construction in which the subject is a causer or an experiencer while the second argument represents a resultant state. It is also often observed that the CO represents a resultant state. That is, the CO describes the result of the action denoted by the verb (cf. Jespersen 1927, Quirk et al. 1985, Kuno and Takami 2004):

(45) a. *The glass **broke a crooked break**.

b. *She **arrived a glamorous arrival**.

c. *It **emerged a strange emergence**.

The verbs here themselves are achievements, denoting an endpoint. Adding the CO then means the sentence represents the results of results, which is tautological.

This can be represented as following constructional constraints:

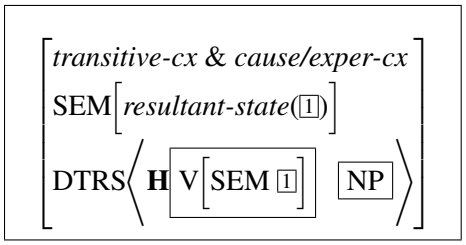


Figure 1: English Cognate Construction

What the construction tell us is that it is a subtype of transitive-construction with the subject playing the role of a causer of experiencer. In addition, the presence of the CO contributes to a resultant-state of the predication (specified by the [1]). Since the construction is syntactically a transitive construction, we can observe that no expression can intervene between the verb and the CO:

(46) a. *Fred *drove* **suddenly** *a classic car*.

b. *Fred *smiled* **suddenly** *an enigmatic smile*.

Note that this construction also has two subtypes: EVENTIVE-CO and REFERENTIAL-CO. The difference is the semantic contribution as represented in the following:

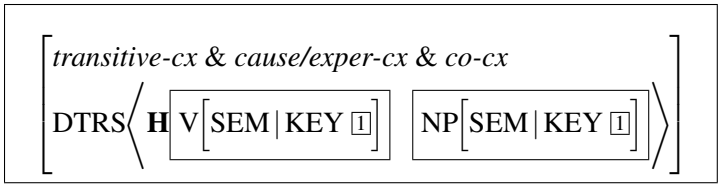


Figure 2: English EVENTIVE-CO Construction

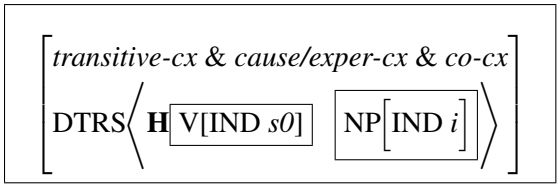


Figure 3: English REFERENTIAL-CO Construction

As seen here, in the EVENTIVE-CO, the CO's core (key) meaning (not the meaning of a modifier or others) is identical with the main verb, forming a complex predicate. For example, in the construction *smile a happy smile*, the object's KEY meaning 'smile' is identical with the verb *smile*, leading us to interpret the object as predication. That is, such an EVENTIVE-CO construction would have the following semantic composition:

(47) $\lambda x \exists e$[smile(e, x), happy(e)]

Meanwhile, in the REFERENTIAL-CO, the object NP refers to an individual, rather than an event. For example, the REFERENTIAL-CO *sing a happy song* will have the following semantic composition:

(48) $\lambda x \exists e$[sing(e, x, y), happy-song(e, y)]

These two subtypes, different with respect to the object's property, bring us differences in syntactic phenomena, as we have seen. The passivization of the CO in the EVENTIVE-CO is not possible since the object denotes an event, but there is nothing wrong to passivize the CO of the REFERENTIAL-CO since it refers to an individual. The wh-question of the CO is also possible when the CO belongs to the REFERENTIAL-CO, referring to an individual.

As we have assumed, any verb can combine with this CO construction as long as the other conditions are met. The unergative verbs are typical. However, not all unergative verbs appear in the COC as we have seen earlier (see Mittwoch 1998):

(49) a. *The bell rang a long ring.

b. *She shot a fast shot.

One thing we can note here is that the verbs *ring* and *shoot* are already achievement verbs. As suggested by Kuno and Takami (2004), there is thus no need to introduce the CO to represent a resultant state. Note that the CO verb can even participate in ditransitive constructions. Consider the following COCA examples:

(50) a. If you give me a foot rub I'll *sing you a song*.

b. Get out there and *sing me a song. Dance me a dance*.

c. John *smiled Mary a wicked smile*.

d. He was hoisted to the shoulders of admirers who *danced him a merry dance*.

The ditransitive use is possible as long as the verb *sing* or *smile* can combine with the 'cause-motion' construction, a subtype of ditransitive construction. The flexible uses of the CO verbs can be further observed from COCA examples like the following:

(51) a. I thought this would be the place I would *live out my life*.

b. He had a lesser charge of forgery, got a year sentence, and *died a hero* to the Dutch people.

Such examples can be taken to be a complex transitive. For example, in (51a) the particle can function as a predicate of the object *my life*. In (51b), note that the intransitive *die* is used as a transitive without any CO. Such innovative uses of the verbs support the view that the argument constructions interact with the lexical semantics of each verb, licensing new, nontraditional uses. The uses of the CO are also similar: the interactions between the argument construction, lexical semantics, and constructional constraints license the CO.

5 Conclusion

We have seen that there are two different types of the COC: EVENTIVE-CO and REFERENTIAL-CO with respect to what the CO refers to. The CO of the EVENTIVE-CO refers to an event while that of the REFERENTIAL-CO denotes an individual. The typical verbs used in the COC are unergatives except the verb *die*. The verb *die* seems to occur in the COC when its subject functions as an experiencer rather than a theme. Its CO represents an event often modified by a manner representing adjective. We have suggested that the eventive CO forms a complex predicate with its verb, similar to the light verb construction. In a language like Korean, the COC and the LVC seem to be tightly interacting and competing each other. The referential CO, meanwhile, has canonical object properties, undergoing passivization or pronominalization.

In addition, we have shown that the uses of the CO selecting verbs are much more flexible than the literature has suggested. As a way of accounting for these variations, we have sketched a Construction Grammar view in which argument structure constructions, lexical semantics, and constructional constraints are all interacting together to license the construction in question.

References

Borer, Hagit. 1994. The projection of arguments. In Benedicto, Elena., and Jeffrey Runner (eds.), *University of Massachusetts Occasional Papers in Linguistics* 17, 19-47. Amherst: GLSA.

Burzio, Luigi. 1981. *Intransitive Verbs and Italian Auxiliaries.* Doctoral Dissertation, MIT, Massachusetts: Cambridge.

de Swart, Peter. 2007. *Cross-Linguistic Variation in Object Marking.* Doctoral Dissertation, University of Nijmegen.

Felser, Claudia., and Anja Wanner. 2001. The Syntax of Cognate Objects and Other Unselected Objects. In Dehé, Nicol., and Anja Wanner (eds.), *Structural Aspects of Semantically Complex Verbs*, 105-130. Frankfurt, Bern & New York: Peter Lang.

Goldberg, Adele E., and Farrell Ackerman. 2001. The Pragmatics of Obligatory Adjuncts. *Language* 77, 4: 798-814.

Goldberg, Adele E., and Ray Jackendoff. 2004. The English Resultative as a Family of Constructions. *Language* 80, 3: 532-568.

Goldberg, Adele E. 2006. *Constructions at Work: The Nature of Generalization in Language.* Oxford: Oxford University Press.

Hamada, Hideto. 1996. Douzoku-mokutekigo nitsuite (On Cognate Object Constructions), *Hokkaido Eigo Eibungaku* 41: 67-80.

Höche, Silke. 2009. *Cognate Object Constructions in English: A Cognitive-Linguistic Account.* Tübingen: Narr.

Horita, Yuko. 1996. English Cognate Object Constructions and Their Transitivity. *English Linguistics* 13: 221-247.

Huddleston, Rodney., and Geoffrey K. Pullum. 2002. *The Cambridge Grammar of the English Language.* Cambridge University Press.

Iwasaki, Shin-ya. 2007. A Cognitive Analysis of English Cognate Objects. *Constructions* 1/2007

Jespersen, Otto. 1927. *A Modern English Grammar on Historical Principles, Part II*. Heidelberg: Carl Winters Universitätsbuchhandlung.

Jones, Michael A. 1988. Cognate Objects and the Case-filter. *Journal of Linguistics* 24, 1: 89-110.

Kearns, Kate. 1988. Light Verbs in English. Ms., MA: Cambridge.

Kim, Jong-Bok., and Peter Sells. 2008. *English Syntax: An Introduction*. CSLI Publications.

Kim, Jong-Bok., and Peter Sells. 2011. The Big Mess Construction: Interactions between the Lexicon and Constructions. *English Language and Linguistics* 15, 2: 335-362.

Kuno, Susumu., and Ken-ichi Takami. 2004. *Functional Constraints in Grammar: On the Unergative-Unaccusative Distinction.* Amsterdam: John Benjamins.

Langacker, Ronald W. 1991. *Foundations of Cognitive Grammar* Vol. II: *Descriptive Application*, Stanford: Stanford University Press.

Levin, Beth., and Malka Rappaport Hovav. 1995. *Unaccusativity: At the Syntax-Lexical Semantics Interface.* Cambridge, MA: MIT Press.

Macfarland, Talke. 1995. *Cognate Objects and the Argument/Adjunct Distinction in English.* Doctoral Dissertation, Northwestern University, Evaston Illinois.

Massam, Diane. 1990. Cognate Objects as Thematic Objects. *Canadian Journal of Linguistics* 35, 2: 161-190.

Matsumoto, Masumi. 1996. The Syntax and Semantics of the Cognate Object Construction. *English Linguistics* 13: 199-220.

Michaelis, Laura A. 2012. Making the Case for Construction Grammar. In Boas, Hans C. and Ivan A. Sag (eds.), *Sign-Based Construction Grammar*. Stanford: CSLI Publications.

Mittwoch, Anita. 1998. Cognate Objects as Reflections of Davidsonian Event Arguments. In Rothesten, S. (ed.), *Events and Grammar*, 309-332. Kluwer: Dordrecht.

Nakajima, Heizo. 2006. Adverbial Cognate Objects. *Linguistic Inquiry* 37, 4: 674-684.

Ogata, Takafumi. 2008. Cognate Objects as Categorical Expressions. *Journal of Chikushi Jogakuen University and Junior College* 3, 1-14.

Perlmutter, David M. 1978. Impersonal Passives and the Unaccusative Hypothesis. In Ackerman, Farrell., and Jeri J. Jaeger (eds.), *Proceedings of the Fourth Annual Meeting of the Berkeley Linguistics Society*, 157-189. Berkeley: University of California, Berkeley Linguistics Society.

Perlmutter, David M., and Paul M. Postal. 1984. The I-Advancement Exclusiveness Law. In Perlmutter, David M., and Carol Rosen (eds.), *Studies in Relational Grammar* 2, 81-125. Chicago: University of Chicago Press.

Potts, Christopher. 2007. Conventional Implicatures, a Distinguished Class of Meanings. In Ram-

chand, Gillian., and Charles Reiss (eds.), *The Oxford Handbook of Linguistic Interfaces*, 475-501. Oxford: Oxford University Press.

Quirk, Randolph., Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik. 1985. *A Comprehensive Grammar of the English Language.* London: Longman.

Real-Puigdollers, Cristina. 2008. The Nature of Cognate Objects: A Syntactic Approach. In Blaho, Sylvia., Camelia Constantinescu and Bert Le Bruyn (eds.), *Proceedings of the the 16th Conference of the Student Organization of Linguistics in Europe*, 157-178.

Rice, Sally. 1988. Unlikely Lexical Entries. In Axmaker, Shelley., Annie Jaisser, and Helen Singmaster (eds.), *Proceedings of the Fourteenth Annual Meeting of the Berkeley Linguistics Society*, 202-212. Berkeley: University of California, Berkeley Linguistics Society.

Sag, Ivan A. 2012. Sign-Based Construction Grammar: An Informal Synopsis. In Boas, Hans C., and Ivan A. Sag (eds.), *Sign-Based Construction Grammar*, 69-202. Stanford: CSLI Publications.

Sailer, Manfred. 2010. The Family of English Cognate Object Constructions. In Mueller, Stefan, (ed.), *Proceedings of the HPSG10 Conference*, 192-211.

Son, Hyeok. 2009. Structure and Types of Cognate Object Constructions. *The Linguistic Association of Korea Journal* 17, 2: 65-91.

Takami, Ken-ichi. 1998. Unaccusativity and the Resultative Constructions in English and Japanese. Ms., Tokyo: Tokyo Metropolitan University.