

Interactions between Verbs and Constructions in English:

A Constructional View

by

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Chapter 1

Introduction

1.1. The Aim of This Dissertation

The interaction between verbs and constructions has been perhaps the most important topic in linguistics, and English linguistics was never an exception. In this connection, there are two approaches with respect to “form and meaning”: one approach is based on the view that the form of a sentence is determined by the meaning of the verb itself, the other approach on the view that the form of sentences is determined by the construction itself rather than the verb. The former is the generative grammar approach, represented by Chomsky, which assumes that the meaning of verbs must be projected into any syntactic structure of verbs. By contrast, the latter is a constructional grammar approach, represented by Fillmore, Goldberg, and Croft, among others, which proposes that a construction itself has its own meaning which cannot be determined by the verb alone when found in this construction, and this is quite the opposite of the Chomskyan transformational grammar approach.

The aim of this dissertation is to investigate the interaction between verbs and constructions in English from this constructionist perspective. There are two basic ideas behind Construction Grammar. One idea is that a construction is “form–meaning correspondences that exist independently of particular verbs” (Goldberg (1995: 1)). The other is that “constructions form a network and are linked by inheritance relations which motivate many of the properties of particular constructions” (Goldberg (1995: 67)). Based on these two basic ideas, I will investigate how verbs and constructions interact with each

other in English.

As for the first basic idea that a construction is correspondence between form and meaning, I will propose that a construction acts as a correspondence rule that links the conceptual structure with the syntactic structure, and hence that not only sentences but also phrases, words, and even morphemes can be counted as constructions. Along these lines, I will treat VPs as constructions: the V *the hell out of* construction in Chapter 6 and the Body-Part *off* construction in Chapter 7, even the configuration *I regret to say* and *regrettably speaking* in Chapter 8, not to mention the resultative construction in Chapter 2. The discussions throughout these chapters lead to my new claim that the constructions in each chapter share a common character in that they serve to resolve the mismatch between syntax and semantics.

According to the other basic idea that constructions form a network and are linked by inheritance relations, I will show how the constructions are linked to form a network.

What needs to be noted here is that we differ from Goldberg (1995) with regard to the interaction between verbs and constructions. As Iwata (2005: 114–115) points out, Goldberg seems to indicate that constructions play a more important role than verbs in the interaction between them, by stating that “on a constructional approach to argument structure, systematic differences in meaning between the same verb in different constructions are attributed directly to the particular constructions” (Goldberg (1995: 4)). However, I will propose, on a constructional view, that we have to care about verbs, not to mention constructions, to explicate the interaction between them (cf. Jackendoff (1990, 2010), Iwata (2008), Croft (2012)).

1.2. The Organization of This Dissertation

This dissertation is organized as follows. Chapter 2 discusses the resultative

construction from the constructional perspective, introducing basic notions used throughout this dissertation. Chapter 3 proposes that the ‘motion verb plus goal phrase’ construction is a more abstract construction which includes the motion, caused-motion, and resultative constructions, and that the resultative construction can be seen as a metaphorical extension of the caused-motion construction. Chapter 4 discusses what I call the ‘verb plus *into*-phrase’ construction, exemplified by *John ran into the park*, which expresses an accomplishment. Throughout the discussion, I will show how this accomplishment is derived through the interaction between verbs and *into*-phrases on a constructional view. Chapter 5 will show that what I call the Push Open construction (e.g. *He pushed open the door*) is a special case of the resultative construction, in that the Push Open construction has a conceptual structure determined through a lexical conceptual interaction between *push* and *open*. In Chapter 6, I will propose that what we call the V *the hell out of* construction, exemplified by *I {beat/kicked/annoyed/punched/surprised/irritated} the hell out of him*, is construed as having the intensifying interpretation through the interaction between verbs and *the hell out of* in the conceptual structure. I will show that *the hell out of* functions as a helper to give the interpretation of the caused-motion, being coerced by the construction itself.

Chapter 7 will show the existence of the body-part *off* construction, which is independent of other constructions like the resultative construction, exemplified by “Pat sang/drank/sewed *his heart out*” and “Terry yelled/wrote/programmed *her head off*.” The purpose of Chapter 8 is to show the parallelism of *to say* in the parenthetical clause *I regret to say* as a style disjunct and *speaking* in the sentential adverb *regrettably speaking* in that they express a speaker’s speech act and share a number of parallel functions.

Chapter 2

The Resultative Construction Revisited: An Introduction of Basic Theoretical Notions

2.1. Introduction

The aim of this chapter is to investigate the interaction between verbs and constructions in English, introducing the theoretical notions relevant to the discussions in the present dissertation.

In this chapter, I will examine closely the resultative construction which cannot be explained by the verb itself. By doing so, I can conveniently provide a close explanation on the difference between the projectionist and the constructional perspectives. As I take the constructional perspective throughout the present dissertation, I will have to explain this perspective, and show how it differs from the projectionist view before I can proceed. To show that our treatment of the resultative construction can be only stated within the construction view serves as a piece of evidence for this view as a whole. Before starting this discussion, let us quote from Croft (2007: 463) the fundamental principle behind Construction Grammar: “the basic form of a syntactic structure is a construction—a pairing of a complex grammatical structure with its meaning—and that constructions are organized in a network.”

2.1.1. The Property and Classification of the Resultative Construction

There are so-called resultative constructions in English, which describe the result state caused by the action denoted by the host verb. There has been a variety of studies on this

construction among researchers (Randall (1982), Simpson (1983), Hoekstra (1988), Levin and Rappaport Hovav (1991, 1992, 1995, 1999, 2005), Goldberg (1991, 1995), Carrier and Randall (1992), Napoli (1992), Wechsler (1995, 1997, 2001), Kageyama (1996), Rappaport Hovav and Levin (1996, 1998, 2001), Washio (1997), Takami and Kuno (2002), Boas (2003), Nakamura (2003), Goldberg and Jackendoff (2004), Rothstein (2004), Thompson (2006), Croft (2012), and many others). From these studies, the resultative construction can be classified as follows:

(1) Classification of the resultative construction:

(A)	(B)	examples	(C)
Transitive	Weak	a. He painted the house <u>blue</u> . (Change of State)	True Object
	Strong	b. They drank the pub <u>dry</u> . (Change of State) c. He wiped the dirt <u>off</u> . (Change of Location)	Fake Object
Intransitive	Weak	d. The river froze <u>solid</u> . (Change of State) e. John danced <u>into the room</u> . (Change of Location)	
	Strong	f. He laughed himself <u>hoarse</u> . (Change of State) g. He laughed the singer <u>off the stage</u> . (Change of Location)	Fake Object

(A) is a classification of verbs into “transitive” and “intransitive” (Curme (1947)). (B) is the classification by Washio (1997), which distinguishes between “weak” and “strong” according to whether or not the resultative phrase further specifies the nature of a change already implied by the verb. In the classification of object in (C), what “fake object” means is that the object can appear in the resultative construction with intransitive verbs (i.e. unergative verbs), like *himself* in (1f) (fake reflexives as termed by Simpson (1983)) or like *the singer* in (1g) (nonsubcategorized NP; cf. Rivière (1982)).

As for transitive verbs, resultative phrases predicated of a fake object are found with those like *eat* and *drink*, which does allow the omission of their object (e.g. *The boy drank*) as in (1b), where the nonsubcategorized NP *the pub* occurs in the resultative construction with the verb *drink* (Rappaport Hovav and Levin (2001: 776)). Inference relates the pub as a place in which one drinks to the act of drinking (Rappaport Hovav and Levin (2001: 789)).¹ Also, fake objects can appear in the resultative construction with transitive verbs as in (1c), where the nonsubcategorized NP occurs in the resultative construction with the surface-contact verb *wipe* (cf. Hoekstra (1988), Levin and Rappaport Hovav (1991), Brisson (1994), Rappaport Hovav and Levin (1998), Nemoto (2007)). Kageyama (1996) points out with regard to (1c) that there is a contrast between (2a) and (2b), where the verb *wipe* can take a location *the table*, but not a locatum *the dirt*, since *wipe* denotes surface-contact actions.

- (2) a. She wiped the table.
 b. *She wiped the dust. (Kageyama (1996: 246))

Strong resultatives like (1b, c, f, g) are generally assumed to be more peripheral or marked in contrast to Weak resultatives like (1a, d, e). However, Strong resultatives are quite common in actual use, as can be seen in (3)–(5).

- (3) a. Kay wiped the counter clean.
 b. Sylvia shoveled the walk clear. (Levin and Rappaport Hovav (1991: 44))
- (4) a. Joggers often run themselves sick.
 b. poor Sam . . . had coughed himself into a haemorrhage . . .
 (Rappaport Hovav and Levin (2001: 780))
- (5) a. I . . . ruthlessly roused Mr. Contreras by knocking on his door until the dog
 barked him awake. [S. Paretsky, *Blood Shot*, 183]
 (quoted in Levin and Rappaport Hovav (1995: 42))
 b. The joggers ran their Nikes threadbare. (Carrier and Randall (1992: 173))

The meanings of resulting state can be possible by the addition of resultative phrases. To see this, let us consider this from the aspectual perspective. I will assume, in what follows and throughout the present dissertation, the familiar four-part classification of verb phrases proposed by Vendler (1967) (cf. Smith (1991)). Let us cite Thompson's (2006: 212) definitions and examples to elucidate this classification:

- (6) (A) Accomplishments: events that have a duration and a definite end point
 e.g. Mary drew the circle.
- (B) Achievements: events that have a definite end point, but are instantaneous
 e.g. Mary found the treasure.
- (C) States: events that are ongoing in time
 e.g. Mary knew French.
- (D) Activities: processes or "happenings" that are ongoing in time
 e.g. Mary pushed the cart.

Let us now see (7) as a case of Transitive resultatives.

- (7) a. The waiter wiped the table (*in/for two minutes).
b. The waiter wiped the table dry (in/*for two minutes).

(Levin and Rappaport Hovav (1995: 58))

Dowty (1979) points out that a verb can be classified as an activity when it allows an atelic reading, as shown by its felicity when used together with adverbial PPs with *for*, but not with *in*. On the other hand, he says that a verb is an accomplishment if it can be used with adverbial PPs with *in*, but not with *for*. According to this aspectual test, (7) shows that the accomplishment reading is possible when the resultative phrase *dry* is added as in (7b), whereas *wipe* in (7a) is used as an activity. In other words, *wipe* can be used as an accomplishment when it appears in the resultative construction, although *wipe* itself is originally an active verb. That is, the addition of a resultative phrase can be used to map an activity into an accomplishment (Levin and Rappaport Hovav (1995: 62)).² I will assume here that the meaning shift in lexical aspect in (7) is one of the “coercions” within the conceptual structure, following Jackendoff (1997a) who calls this “aspectual shift” (see Pustejovsky (1991, 1995) for coercion).

It is worth noticing here that the same coercion can also be seen in the Strong intransitive resultative construction, as pointed out in Mihara (2004) among others, as illustrated in (8)–(9).

- (8) a. The joggers laughed {*in/for} about two minutes.
b. The joggers laughed themselves into a frenzy {in/*for} about two minutes.

(Mihara (2004: 178))

- (9) a. The joggers ran {*in/for} an hour.
b. The joggers ran the pavement thin {in/*for} an hour.

(Mihara (2004: 19))

The data in (8)–(9) also show, identified by the Dowty test, that unergative verbs such as *laugh* and *run* can be used as an accomplishment when appearing in the resultative construction, although unergative verbs are themselves lexically activity verbs.

So far, I have briefly shown the properties and classification of the resultative construction.

2.1.2. The Scope and Aim of this Chapter

This section will look into more details of the property and classification of the resultative construction, mentioned briefly just above in the previous section. For this, it is necessary to investigate whether or not the resultative construction can be explained by the verb heading the construction itself.

In this connection, there are two approaches to the resultative construction: one is the “projectionist approach” proposed by Levin and Rappaport Hovav (1995), among others; the other is the “constructional approach” proposed by Goldberg (1995), Kageyama (2001), and Goldberg and Jackendoff (2004), among others. The former account is founded on a traditional generative view that phrase structure is to be projected from the lexicon (Chomsky (1981)). That is, “verbs have structured lexical semantic representations from which syntactic structures are projected” (Rappaport Hovav and Levin (1998: 127)), also discussed on the same lines by Chomsky (1981, 1995) and Pinker (1989). On this view, the resultative construction can be explained by the verb itself that heads the construction. By contrast, the latter is based on the constructional view that “the construction rather than the verb

determines the argument structure; the way the verb is integrated into the interpretation of the clauses comes from the construction, not from the verb itself; and all the semantic peculiarities come from the meaning associated with the construction” (Jackendoff (1997b: 554)). It follows from this view that the resultative construction can be explained by the construction itself, but not by the verb.

I will propose that the resultative construction can be treated only within this constructional view. Viewed from the perspective of event, it will be shown, following Goldberg and Jackendoff (2004), that the resultative construction is a complex of the verbal and constructional subevents, and hence the constructional meaning yielded by this construction stems from the fusion of these two subevents.

2.2. Problems with the Projectionist Approach

2.2.1. The Outline of the Projectionist Approach

Mainstream generative grammar, represented by Chomsky (1957, 1965, 1970, 1981, 1995, 2000, 2001, 2008), proposes that verbs determine the meaning of sentences, based on semantics which says sentence meaning is compositional. “Compositional” here means that “the meaning of an expression is determined by the meaning of its component parts and the way in which they are combined” (Saeed (2009: 11)). Within the minimalist framework, verbs are assumed to be made through syntactic derivation, although they were treated as lexical items which undergo lexical insertion in the early days of generative grammar (cf. Fujita and Matsumoto (2005)). That is, verbs are treated as being syntactic, which means that the meaning of verbs can be read off from syntactic structure, since syntactic structure can be projected from the lexical property. On this view, the meaning of verbs is derived from syntactic structure: the meaning and the phonetics encoded in syntax are derived from a common syntactic structure.

Following Levin and Rappaport Hovav (2005), I will henceforth refer to the minimalist approach as “neoconstructionist approach,” and the earlier transformational approach as “projectionist approach.” The present study regards them both as projectional approaches from the perspective of compositionality. However, there is a difference between the two approaches regarding aspectual coercion. With this in mind, I will propose in the following section that there are problems with the projectional approaches, and that we cannot treat the resultative construction within either approach.

2.2.2. The Projectionist Approach and its Problems

The projectionist approach, represented by Levin and Rappaport Hovav (1995), provides an explanation for the resultative construction through syntactic derivations amidst the hidden level of structures (e.g. lexical conceptual structure, argument structure, D-structure), based on the traditional generative view that phrase structure is taken to be projected from the lexicon (cf. Simpson (1983), Carrier and Randall (1992), Levin and Rappaport Hovav (1995), etc.). In particular, Levin and Rappaport Hovav (1995), following Simpson (1983), propose a unified restriction on all resultative constructions as in (10), which they call the Direct Object Restriction (DOR).

(10) The Direct Object Restriction (DOR):

The result phrase must be predicated of a direct object.

(Levin and Rappaport Hovav (1995: 34))

Note here that the DOR is based on the Unaccusativity Hypothesis (Perlmutter (1978), Perlmutter and Postal (1984), Burzio (1986)), which is a syntactic hypothesis that claims that there are two classes of intransitive verbs, unaccusative verbs and unergative verbs, each

associated with a different underlying syntactic configuration. The proposal is that the single argument of unaccusative verbs is an underlying object, whereas the single argument of unergative verbs is an underlying subject.

The DOR predicts that resultative phrases cannot be predicated of NPs that are not direct objects. This is confirmed by the following three arguments, as pointed out by Levin and Rappaport Hovav (1995).

First, the contrast of grammaticality in (11) shows that the subject of a transitive verb in (11b) cannot have a resultative phrase predicated of it, whereas the direct object in (11a) can.

- (11) a. John broke the vase into pieces.
b. *John pounded the metal tired. (Kishimoto (2005: 102))

Note here that the subject of a transitive verb in (11b) can have a depictive phrase (e.g. *nude*), but it does not have a resultative phrase, as can be seen in (12).

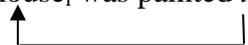
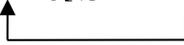
- (12) John pounded the metal nude.

Similarly, (13) shows that the oblique argument (i.e. object of preposition) in (13b) cannot have a resultative phrase, whereas the object of the transitive verb in (13a) can.

- (13) a. The silversmith pounded the metal flat.
b. *The silversmith pounded on the metal flat.
(Levin and Rappaport Hovav (1995: 41))

Second, with passive verbs and unaccusative verbs, the DOR can be maintained, given

a movement analysis of a passive verb in (14a) and an unaccusative verb in (14b) respectively, as indicated by the arrows in (14).

- (14) a. [IP The house_i was painted t_i blue]. (cf. (1a))

 b. [IP The river_i [VP froze t_i solid]]. (cf. (1d))

 (cf. Levin and Rappaport Hovav (1995: 39–41))

This shows that the surface subjects of a passive verb in (14a) and an unaccusative verb in (14b) are analyzed as derived subjects and underlying objects. Thus, the DOR predicts that passive and unaccusative verbs can appear with resultative phrases predicated of their surface subjects.

Finally, for unergative verbs, the DOR predicts that they cannot appear with resultative phrases, since they have no objects, as can be seen in (15).

- (15) a. *Dora shouted hoarse. (cf. (1f))
 b. *He laughed off the stage. (cf. (1g))
 (cf. Levin and Rappaport Hovav (1995: 35–36))

Yet, through the addition of what Simpson (1983) calls a “fake reflexive” object, as in (16a), or a nonsubcategorized NP (i.e. NP which is not semantically selected by verbs), as in (16b), (15) can conform to the DOR as follows:

- (16) a. Dora shouted *(herself) hoarse. (cf. (1f))
 b. He laughed *(the singer) off the stage. (cf. (1g))
 (cf. Levin and Rappaport Hovav (1995: 35–36))

Both types of resultative constructions based on unergative verbs in (16) involve resultative phrases predicated of fake reflexive objects or nonsubcategorized NPs. The important point here is that fake reflexive NPs can be treated, from the perspective of the projectionist approaches, as a syntactic device for allowing a resultative phrase to be interpreted. In other words, fake reflexive NPs can serve to meet syntactic constraints like the DOR, provided that they are meaningless. (I will argue against this in the following section, contending that within the constructional approach, these reflexives do have meanings.)

So far I have reviewed the analysis of resultative constructions from the viewpoint of the projectionist approach. I will, however, give four pieces of counterevidence against the DOR. First, as mentioned in (14b), the DOR predicts that a resultative phrase can be predicated of the single argument of unaccusative verbs, as illustrated in (17).

(17) The river froze solid. (= (1d))

However, this is not exactly correct. The subclass of unaccusatives which Levin and Rappaport Hovav (1995) call “verbs of inherently directed motion” is incompatible with resultative phrases, in contrast to (17), as can be seen in (18). Note here that (18) is not acceptable on the resultative interpretation (Willa became breathless as a result of arriving).

(18) *Willa arrived breathless. (Levin and Rappaport Hovav (1995: 58))

The DOR cannot account for the ungrammaticality exhibited by (18).

Secondly, as shown in (15)–(16), if manner of motion verbs such as *run*, *walk*, and *dance* are treated as the subclass of unergative verbs, the DOR requires fake objects such as fake reflexives and nonsubcategorized NPs to be predicated by resultative phrases. Here

again, this is not always true, as can be seen in (19), where a fake resultative object is not found in the resultative construction based on unergative verbs.

(19) Robert ran/walked/danced into the room.

Similarly, Kageyama (2000: 60–62) points out that the unergative verb *strip* need not require the fake reflexive to be predicated by a resultative phrase, as can be seen in (20).

(20) Willie stripped naked and stepped back into the small boat, shivering.

(LOB: N24 185)

[_{X_i} ACT] CAUSE [_{X_i} BECOME [_{X_i} BE NOT-WITH-CLOTHES-ON-X_i]]

(Kageyama (2000: 61))

According to Kageyama (2000), the reason here is that *strip* can specify a reflexive relation in lexicon rather than in syntax. Thus, it is not necessary to conform to the DOR.

Thirdly, there are cases where resultative phrases are predicated of the subject of transitive verbs, as in (21). As the DOR predicts this to be ungrammatical, this poses a problem.

(21) a. The wise men followed the star out of Bethlehem.

b. The sailors managed to catch a breeze and ride it clear of the rocks.

c. He followed Lassie free of his captors. (Wechsler (1997: 313))

Finally, the contrast between (22) and (23) is a big problem for the DOR.

- (22) a. Bill cried himself to sleep.
 b. *Bill cried Sue to sleep. (Goldberg and Jackendoff (2004: 546))
- (23) a. Bill sang himself to sleep.
 b. Bill sang Sue to sleep. (Goldberg and Jackendoff (2004: 546))

The verb *cry* in (22) and the verb *sing* in (23) can be referred to as “verbs of manner of speaking” (cf. Levin (1993: 205)). The contrast between (22) and (23) cannot be explained by the DOR based on the Unaccusativity Hypothesis. This is because the DOR only stipulates that unergative verbs can appear with a resultative phrase, in the circumstances that there are fake objects. That is, the DOR fails to explain why only (22b) is not acceptable, while (22a) and (23a, b) are acceptable, even though *sing* in (22) and *cry* in (23) fall in the same class, namely the verbs of manner of speaking.

2.2.3. The Neoconstructionist Approach and its Problems

The neoconstructionist approach (Borer (1994, 2003, 2005), Ritter and Rosen (1996, 1998, 2000, 2001), Thompson (2006), among many others), as termed by Levin and Rappaport Hovav (2005: 189–193), proposes that the constructional meaning is encoded directly in syntax, by using elaborated syntactic representations, which are each associated with a specific interpretation. The idea most neoconstructionists have in common is that constructional meanings concerning aspect, voice, and other such grammatical functions can be assumed to be read off of syntactic structure ‘projected from’ the functional category (e.g. Aspect phrase, Voice phrase, vP, etc.), but not from lexical category, or verbs. That is, constructional meanings can be taken to have meanings which cannot be associated with lexical semantic representations of lexical verbs, such as “case frame” (Fillmore (1968)) or “theta-grid” (Stowell (1981)). On the neoconstructionist’s view, the meaning encoded in

syntactic structures is compositionally derived. In the sense that they make use of “projected from” and “compositionally derived” as their machinery, we can safely say that they are also projectionists within the minimalist framework (Chomsky (1995)).

In what follows, I will take up Thompson (2006) to epitomize the neoconstructionist approaches to the resultative construction at length and point out problems with neoconstructionist approaches. Thompson shows that verbs can be syntactically derived, and that constructional meaning can thereby be encoded in (or read off from) syntactic structure through the interaction of verbs and constructions.

To see how the resultative construction is treated under her theory, consider (24)–(25).

(24) Mary ate an apple {in/*for} an hour. [Measuring NPs]⁴

(25) a. John walked to the store {in/*for} two hours. [Goal phrases]

b. John walked himself lame {in/*for} two hours. [Resultative phrases]

Recall here that *for*-durative adverbials may be used as a test for delimitedness (the Dowty test). As mentioned above, it has been generally assumed that activity verbs can be construed as accomplishment verbs, through the addition of aspectual delimiters, identified by the Dowty test (cf. Tenny (1994), among others). On this view, the underlined part *an apple* in (24), *to the store* in (25a), and *lame* in (25b) serve as aspectual delimiters. Notice here that resultative phrases act as aspectual delimiters, since they serve to measure-out verb phrases, as can be identified in (25b).

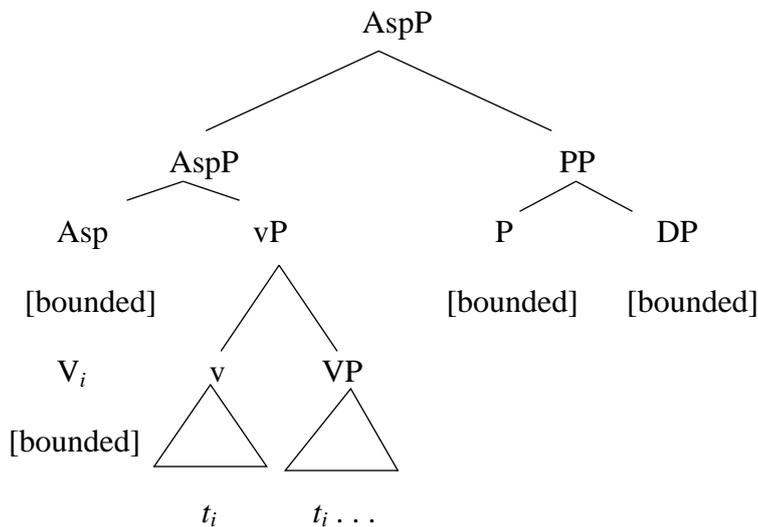
With this in background, Thompson (2006) proposes, along the neoconstructionist line, that the constructional meaning, namely telic readings in (24) and (25), can be encoded respectively in the syntax, as illustrated in (26a) and (26b).

- (26) a. [bounded] verb, [bounded] Aspect, [bounded] direct object
 b. [bounded] verb, [bounded] Aspect, [bounded] PP (Thompson (2006: 215))

This shows that the meaning of constructions is compositionally derived from the meaning of the verb, together with the meaning encoded by the semantic feature [bounded] in the syntactic structure. That is, the syntactic configurations in (26) result in telic readings, since “telic interpretations of events involve checking of the [bounded] feature in AspP by the verb and the aspectual head either with a direct object or with adjunct PP” (Thompson (2006: 226)).

Now, notice here that (26b) is available in the case of the resultative construction. These configurations that result in telic readings, leaving aside irrelevant details, can be represented as in (27).

(27) Syntactic configurations for telic events:



(Thompson (2006: 217))

The representation in (27) indicates that bounded PPs, namely resultative phrases, play a role in syntax by contributing to the telic readings. That is, upon the assumption that the feature

[bounded] is checked when a bounded PP is in the configuration for feature checking, the addition of a resultative phrase with a [bounded] feature can result in the shift of meaning from atelic to telic.

So far, I have reviewed the neoconstructionist approach to the resultative construction. Here again, I will show that there are problems with the neoconstructionist account in the following two respects.

First, I will indicate that the feature [bounded] is problematic, empirically and conceptually. To see this, consider (28).

- (28) a. John arrived into the store.
b. *John arrived himself into the store.
c. *John arrived breathless. (cf. Levin and Rappaport Hovav (1995: 58))

According to Thompson (2006), the telic reading in (28a) involves the checking of the [bounded] feature in AspP by the unaccusative verb *arrive* and the aspectual head with the bounded PP *into the store*. However, this cannot provide an explanation for the ungrammaticality of (28b, c). That is, (28b) is ungrammatical, even when the bounded verb *arrive* and the bounded PP *into the store* are combined in the checking domain, just like (28a). The same is true for (28c). (28c) is ungrammatical, as observed in (17) in the previous section, although the bounded verb *arrive* and the bounded PP *breathless* are merged in the checking domain. This means that it makes no sense to say that only some verbs and some PPs have the semantic feature [bounded].

Consider, next, the case of unergative verbs in (29).

(29) a. He hopes to play himself into shape. [*The New York Times*, 23 Feb. 1995, p. B13]

(quoted in Rappaport Hovav and Levin (2001: 773))

b. *Penny fretted/laughed/ played into the room.

(Rappaport Hovav and Levin (2001: 773))

Here again, the contrast in the grammaticality in (29) cannot be explained within the neoconstructionist analysis. The reason is that (29a) and (29b) are similar in that the bounded PP is merged with the unergative verbs in the checking domain. The data in (28)–(29) above indicate that the feature [bounded] is simply a stipulated notion, only to comply with the checking theory within the minimalist framework.

Second, I will argue against the existence of AspP, where the telic events are composed through the checking of the [bounded] feature. Thompson (2006) proposed that syntactic evidence for (26) comes from the ambiguity shown by the adverb *quickly*, as illustrated in (30).

(30) John built the house quickly.

Manner reading: John moved fast while he was building the house.

Whole event reading: The event of building the house took a short period of time.

(Thompson (2006: 219))

Thompson (2006) explained the ambiguity in (30) as quoted in (31).

(31) On the whole event reading, quickly is adjoined to AspP, In contrast, on the manner of reading of *quickly*, it is adjoined to VP or to vP.

(Thompson (2006: 219))

However, there is a counterexample against (31). Rappaport Hovav and Levin (2001) observed the contrast in the reading of *quickly* between (32) and (33). Notice here that (32)–(33) fall in the class of construction that has a telic reading as the constructional meaning, that is, the resultative construction.

(32) Trace quickly ran to the library.

Manner reading: Tracy ran quickly.

Whole event reading: Tracy got to the library quickly.

(Rappaport Hovav and Levin (2001: 776))

(33) Peter quickly read himself into an inferiority complex, after a few slow deliberate readings of his classmates' theses.

*Manner reading: Peter read quickly.

Whole event reading: Peter quickly developed an inferiority complex.

(Rappaport Hovav and Levin (2001: 776))

Thompson's explanation in (31) for the ambiguity of (30) leads to the prediction that (32) and (33) are equally ambiguous, since *quickly* occurs in the same syntactic positions. This prediction is not correct, however, as can be shown by the contrast between (32) and (33).

So far I have reviewed the neoconstructionist approach to the resultative construction and pointed out the problems therein.

2.3. Proposal

As discussed in the previous section, I have shown that there are problems with the projectionist approaches, based on semantics where the meaning of a sentence is

compositional. In contrast, from the perspective of constructional approach, represented by Lakoff (1987) and Fillmore et al. (1988), and developed by many including Goldberg (1995), Michaelis and Lambrecht (1996), Kay and Fillmore (1999) and Croft (2001, 2005), it is generally assumed that the basic unit of language is a construction, or a unique pairing of a complex grammatical structure with its meaning. A Construction has a constructional meaning of its own, which cannot be compositionally reduced to the meaning of the verbs heading constructions. There are various instantiations of the constructional approach. Even generative grammarians such as Jackendoff (1990, 1997a, 2002, 2010) and Culicover and Jackendoff (2005) have recognized the existence of constructions to some extent. Along this line, Jackendoff (1990, 1997a, 2002, 2010) has developed a framework which he termed Parallel Architecture, adhering to the componential model. Within his theory, the major premise is that “phonology, syntax, and semantics are independent generative components in language, each with its own primitives and principles of combination” (Jackendoff (2010: 1)). On this view, I will propose that the meaning of the resultative construction is determined by the construction itself, but not by the verbs.

2.3.1. The Direct Object Restriction from the Constructional Perspective

As mentioned in section 2.2, the Direct Object Restriction (DOR) adopts, in part, the Unaccusativity Hypothesis. In this respect, Kageyama (1996: 12) points out that the DOR involving the Unaccusativity Hypothesis predicts that a resultative phrase may be predicated of an underlying object of a verb, but may not be predicated of its subject or of an oblique complement. However, the DOR does not give essential explanations of why direct objects are the only targets predicated by a resultative phrase. The present section, then, gives an explanation for this question. I will propose, within the constructional approach, that the DOR is a constraint on the conceptual structure rather than on the syntax.

2.3.2. Semantic Analysis and its Problems

To see the DOR from the semantic perspective, let us once more consider the contrast in the grammaticality between (34) and (35).

(34) Kim ran into the room. (Rappaport Hovav and Levin (2001: 781))

(35) *Willi arrived breathless. (Levin and Rappaport Hovav (1995: 58))

Note here that the contrast between (34) and (35) cannot be explained by the DOR involving the Unaccusativity Hypothesis since *ran* with the PP *into the room* in (34) and *arrived* in (35) are both unaccusative verbs. This obviously shows that a mixed syntactic/semantic analysis, such as the DOR involving the Unaccusativity Hypothesis, is not enough to explain the resultative construction.

Thus, I will review and discuss the semantic and the constructional analyses of the resultative construction. The semantic analysis appeals to “incorporations by verbs themselves” to explain the DOR (see Baker (1985) for incorporation). In contrast, the constructional analysis appeals to metaphorical relations between constructions for the DOR. I will show that the constructional analysis is better equipped to explain the DOR, or the resultative construction, than its syntactic alternatives.

First, let us review the semantic analysis of the resultative construction and point out the problems therein. According to Rappaport Hovav and Levin (1998: 100–103), the verb *run* in (34) has a meaning that includes a notion of manner of motion. On the other hand, the verb *arrive* in (35) has a meaning that indicates that a motion away from a location has taken place. In other words, *run* lexically specifies, or “lexicalizes,” the manner in which the action denoted by the verb is carried out, while *arrive* lexically specifies the result of the action denoted by the verb, that is, an achieved location. Note here that Talmy (1985, 2000a,

2000b) points out that verbs of motion fall into two major types: what he calls “manner incorporation” and “path incorporation.” I will refer to the class of motion verbs typified by *run* as *run*-type verbs, as listed in (36a), and the class typified by *arrive* as *arrive*-type verbs, as listed in (36b) (see Chapter 3 for motion verbs).

- (36) a. *run class*: run, walk, gallop, jump, hop, skip, swim, . . .
b. *arrive class*: arrive, come, go, depart, fall, return, descend, . . .

(Levin and Rappaport Hovav (1992: 252))

To see the difference between *run*-type verbs and *arrive*-type verbs, let us here introduce the action chain in (37) (cf. Langacker (1987, 1991), Croft (1991)).

- (37) Action Chain: <action> → <change> → <state>

As time goes by, <action>, <change>, and <state> are chained in the order that the arrow indicates. Notice here that there are two kinds of “resulting state” (i.e. <change> plus <state>): “change of state” and “change of location.” In this respect, *arrive*-type verbs and *run*-type verbs differ, as can be seen by the contrast between (38) and (39).

- (38) a. We arrived at the airport.
b. *Willa arrived breathless. (Levin and Rappaport Hovav (1995: 58))

- (39) a. John walked into the room.
b. John walked himself into a coma. (Goldberg and Jackendoff (2004: 549))

The contrast of the grammaticality between (38a) and (38b) shows that *arrive*-type verbs like

arrive lexically specify change of location expressed by *at the station* in (38a) rather than change of state expressed by *breathless* in (38b). On the other hand, (39) indicates that *run*-type verbs like *walk* are compatible with both change of location expressed by *into the room* in (39a) and change of state expressed by *into a coma* in (39b).

Parallel to the classification of motion verbs with respect to “*manner* versus *result*,” verbs of surface contact such as *sweep* and *wipe* lexically specify manner of action denoted by the verb, whereas verbs of change of state such as *break* and *open* lexically specify a resulting state denoted by the verb. I will refer to the former as *wipe*-type verbs, and the latter as *break*-type verbs (see Fillmore (1970) for “*manner* versus *result*”). Indeed, there is a fact that suggests that *break*-type verbs parallel with *arrive*-type verbs, as in (40).

- (40) a. *The vase broke worthless. (Jackendoff (1990: 240))
b. *Willa arrived breathless. (= (38b))

Jackendoff (1990) points out that the point-event verbs *break* and *arrive* in (40) are excluded from the resultative construction, by the process requirement on the resultative construction, since *breaking* and *arriving* are not construed as a process. However, Kageyama (1996) observes an example where the verb *break* appears with resultative phrases, as shown in (41).

- (41) . . . as if a dish or kettle had been broken to pieces. [*Alice’s Adventures*]
(quoted in Kageyama (1996: 219))

From this, Kageyama (1996) proposes that the contrast between (40a) and (41) can be explained by whether the meaning of a resulting state denoted by resultative phrase conforms to the meaning of *break*, but not by aspectual properties as proposed in Jackendoff (1990).

That is, in (41), the resultative phrase *to pieces* acts as a further specification of the result already inherent in the verb's meaning, whereas in (40a), the resultative phrase *worthless* cannot act as such. Tortora (1998: 342) also makes a similar observation concerning the unaccusative verb *melt*, as shown by (42).

- (42) a. The wedding cake melted into a slimy mess.
b. *The wedding cake melted ugly. (Tortora (1998: 342))

In the case of (42a), the resultative phrase *into a slimy mess* describes a further resulting state in addition to the state inherently specified by *melt*, whereas in (42b), *ugly* does not. From these observations, Tortora (1998: 341) proposes the following constraint:

- (43) The Further Specification Constraint (FSC):

A verb that is inherently delimited may occur with a resultative, so long as the resultative acts as a further specification of the result already in the verb's meaning.

The important point here is that the same can be said in the case of verbs of motions: the contrast between (38) and (39), repeated here as (44) and (45).

- (44) a. We arrived at the airport.
b. *Willa arrived breathless. (Levin and Rappaport Hovav (1995: 58))

- (45) a. John walked into the room.
b. John walked himself into a coma. (Goldberg and Jackendoff (2004: 549))

The FSC correctly predicts the contrast between (44a) and (44b). The resultative phrase *at*

the station in (44a) can appear with the verb *arrive*, whereas *breathless* in (44b) cannot. This is because the verb *arrive* lexically specifies motion, and hence, a change of location, but not of change of state.

On the other hand, the FSC cannot predict that the resultative phrase *into the room* in (45a) and *into a coma* in (45b) can both appear with the verb *walk*. This is because the FSC states that *walk* lexically specifies a manner of motion, but not a resulting state. Thus, the question arises of how *into the room* and *into a coma* can be licensed. So far I have reviewed the semantic analysis and pointed out its problems.

2.3.3. The Constructional Analysis

I will now review the constructional analysis and propose my alternative analysis of the DOR (Direct Object Restriction) from the constructional perspective. Goldberg (1995) has argued, within the constructionist approach, that the resultative construction in (46a), can be taken as a metaphorical extension of the caused-motion construction in (46b), which involves a literal caused motion, based on the idea that these two constructions are metaphorically related.

- (46) a. Pat hammered the metal flat.
b. Pat threw the metal off the table. (Goldberg (1995: 81))

She gives (47) to support her metaphorical analysis.

- (47) a. *Sam kicked Bill black and blue out of the room.
b. *Sam kicked Bill out of the room black and blue. (Goldberg (1995: 81))

This suggests that the resultative phrase *black and blue* cannot occur simultaneously with the directional phrase *out of the room* regardless of the order in which they occur. Goldberg (1995: 82) thus proposes a constraint on the occurrence of resultatives, as shown in (48).

(48) The Unique Path (UP) Constraint:

If an argument X refers to a physical object, then no more than one distinct path can be predicated of X within a single clause. The notion of a single path entails two things: (1) X cannot be predicated to move to two distinct locations at any time *t*, and (2) the motion must trace a path within a single landscape.

(48) predicts that *arrive*-type verbs cannot occur with resultative phrases expressing metaphorical motions like *breathless*, but can occur with literal motions like *at the station*, since *arrive*-type verbs lexically specify literal motion, not metaphorical motion, as illustrated in (44), repeated here as (49).

(49) a. We arrived at the airport.

b. *Willa arrived breathless. (Levin and Rappaport Hovav (1995: 58))

In short, (48) suggests that the resultative construction and the caused-motion construction are metaphorically related, and the path associated with each of the two constructions are distinct from each other. This means that “the literal/metaphorical path formation” in conceptual structure is formed (or “coerced”) by the addition of resultative phrases (see Chapter 4 for a more close discussion on “coercion”).

With this in mind, let us return to the contrast in (45) earlier discussed under the semantic analysis, repeated here as (50).

- (50) a. John walked into the room.
 b. John walked himself into a coma. (Goldberg and Jackendoff (2004: 549))

I propose here that the metaphorical relation seen in (46) can also be seen in (50). This is confirmed by (51) below, a conceptual near reproduction of (50a). ((51) is not an actual use.)

- (51) John walked himself into the room.

This suggests that (50a) and (50b) are similar in that they have the same conceptual undergoing reflexivization in conceptual structure, as pointed out by Maruta (1998: 227–229). The conceptual structures of (50a) and (50b) are given in (52a) and (52b), respectively.

- (52) a. [[x DO ACT-OF-VOL] INITIATE [x WALK]] CAUSE [BECOME
 [y = x <PLACE>]]
 b. [[x DO ACT-OF-VOL] INITIATE [x WALK]] CAUSE [BECOME
 [y = x <STATE>]] (Maruta (1998: 227))

If this is correct, (52) suggests that (50a) can be understood as the caused-motion construction rather than the motion construction. In light of this fact, it is reasonable to say that the Path denoted by the resultative phrases in (50) can be licensed by Path formation in the conceptual structure identified by (48), from the constructional perspective.

On this view, let us return to (49). As discussed in the previous section, since *arrive*-type verbs already lexically specify a change of location, constructional constraints such as the UP constraint cannot apply to (49a), and hence the metaphor link cannot be used

between (49a) and (49b).

So far I have shown that the constructionist analysis better explains the resultative construction than other analyses. However, this raises the question of how the constructional process appeals to the DOR. To illustrate this point, we will now consider how the constructional process works on the resultative construction to meet the DOR.

2.3.4. The Status of the Postverbal NP in the Resultative Construction

In this section I will investigate in detail how the postverbal NP in the resultative construction can be licensed.

First, consider the status of the postverbal NPs in the resultative construction. Carrier and Randall (1992) propose that the postverbal NP of transitive verbs is an internal argument of the verb, whereas the postverbal NP of intransitive verbs is not. The following examples are taken as evidence for their claim that the postverbal NP is the internal argument of the matrix verb. The examples are concerned with middle formation, adjectival passive formation, and process nominalization, which apply to direct internal objects:

- (53) Transitive Resultative: He hammered the metal (flat).
 - a. Middle Formation: This metal hammers flat easily.
 - b. Adjective Passive: the hammered-flat metal
 - c. Nominalization: the hammering of the metal flat

(Carrier and Randall (1992), as summarized in Goldberg (1995: 182))

In contrast, the same does not apply to the postverbal NPs in the intransitive based resultative construction:

- (54) Fake Object Resultative: He drove his tires *(bald).
- a. Middle Formation: * Those tires drive bald easily.
 - b. Adjective Passive: * the driven-bald tires
 - c. Nominalization: * the driving of the tires bald

(Carrier and Randall (1992), as summarized in Goldberg (1995: 182))

Based on the evidence above they present, Carrier and Randall claim that the verbs occurring in resultative constructions differ with respect to their lexically specified argument structure:

(55)	Basic verb	Resultative verb
a.	Transitive verb like <i>hammer</i> : agent [<u>theme</u>]	agent [<u>theme</u> r-state]
b.	Intransitive verb like <i>drive</i> : agent [theme]	agent [r-state]

(cf. Carrier and Randall (1992: 179))

This shows that verbs occurring in the resultative construction (resultative verbs) inherit the argument structure that they have in non-resultatives (basic verbs), only adding an argument, namely the r(esultant)-state. The important point in their claim concerning our present analysis is that the transitive based resultative verb in (55a) has a theme argument to which it assign a theta-role, whereas the intransitive based resultative verb in (55b) does not. From the constructional perspective, (55) is certainly on the right track, because the constructionist approach is based on the premise that “the meaning of verbs” (i.e. theta-grid) is the same in its various uses across constructions in which the verbs occur. Questions arise here, however, of how and where the postverbal NP is licensed in the intransitive resultative constructions without licensing (or semantic selection) by the matrix verb. Carrier and Randall (1992), of course, noticed this problem and tried to solve it within a projectionist view by revising the

Theta-Criterion (a criterion that all syntactic arguments must be assigned exactly one theta role and all lexically specified theta roles be assigned to exactly one argument) premised by projectionists, and by stipulating the r-state argument (although it is not clear how theta roles are added). However, they could not provide a unified explanation about the relation and property that the transitive and intransitive based resultative constructions have in common, that any resultative constructions is constrained by the DOR.

With this in mind, I will now provide a unified explanation on the resultative constructions, assuming that postverbal NPs in the resultative construction are licensed by the constructions themselves, but not by the verbs. To see how the construction can add arguments, consider the case of the transitive verb *wipe* occurring in the resultative construction, where *wipe* takes a fake object, as earlier discussed in section 2.2.1.

- (56) a. Bill wiped crumbs off the table.
b. Bill wiped the table (*of crumbs). (Jackendoff (1990: 296))

(56) shows that the resultative version of *wipe* in (56a) does not inherit the argument structure of its respective basic verb *wipe* in (56b), which is contrary to (55a). That is, *wipe* in (56a) allows the locatum argument *crumbs* to be realized as a direct object (argument realization),³ whereas *wipe* in (56b) does not allow *crumbs* to be realized even within the *of*-phrase. Consider another contrast in (57), where the verb *wipe* takes a true object in contrast to (56).

- (57) a. She wiped popcorn salt from my palms.
b. *She wiped popcorn salt. (Kageyama (1996: 271))

(57) shows that the resultative version of *wipe* in (57a) does not inherit the argument structure

of its respective basic verb *wipe* in (57b), since the ungrammatical (57b) cannot serve as the source of (57a). In light of these facts, it is reasonable to say that an object is not semantically selected (or assigned a theta-role) by the verb itself, but is licensed by the result phrase (or the resultative construction).

From the consideration above, let us now assume, following Hopper and Thompson (1980), that aspectual properties influence argument realization. To see this, consider the middle construction.

- (58) a. Freshly baked bread cuts easily.
b. *Those kinds of people abhor without any effort.

(Levin and Rappaport Hovav (2005: 97))

This shows that the middle construction is found with some, if not all, transitive verbs, although the object is assigned theta-role from the verbs, and this poses a problem for the analysis above of Carrier and Randall (1992). It is assumed by some researchers (Anderson (1977), Tenny (1994), among others) that a middle construction requires a basic verb taking an object that is an affected argument. On this view, consider the resultative construction in (59).

- (59) a. *This table wipes easily.
b. This table wipes clean easily. (Kageyama (1996: 243))

The contrast of acceptability between (59a) and (59b) suggests that *this table* is aspectually affected by the construction itself, but not semantically selected (or not assigned a theta-role) by the verb. From all the above considerations, we conclude in this section that postverbal

NPs in the resultative construction are affected and thereby licensed by the construction, and not by the verb.

2.3.5. The DOR that Appeals to Constructional Notions (Affectedness)

In this section I will investigate how the constructional process is appealed by the resultative construction to explain the DOR (Direct Object Restriction). To see this, consider the fake reflexives and nonsubcategorized NPs in Strong resultatives. As for the fake reflexive, consider the case of transitive with fake reflexives in (22) and unselected transitive resultatives in (23), repeated here as (60) and (61).

- (60) a. Bill cried himself to sleep. [fake reflexive]
b. *Bill cried Sue to sleep. (Goldberg and Jackendoff (2004: 546))
- (61) a. Bill sang himself to sleep. [ordinary reflexive]
b. Bill sang Sue to sleep. (Goldberg and Jackendoff (2004: 546))

In the case of the construction represented in (60a), the fake reflexive object is viewed as a syntactic device for the resultative phrase to be predicated of the subject, thereby conforming to the DOR involving the Unaccusativity Hypothesis (cf. Perlmutter (1978), Perlmutter and Postal (1984)). That is, the fake reflexive object is seemingly meaningless and hence, does not seem to contribute to conceptual structure. However, the difference between (60) and (61), that (61a) has a non-reflexive counterpart as in (61b) while (60a) does not have such a counterpart, can be explained by pointing out that “the distinction between fake and true reflexives requires no syntactic stipulation, because it arises from our world knowledge of what is likely to cause what” (Goldberg and Jackendoff (2004: 546)). That is, it is quite natural to make someone else go to sleep by singing, while it is not likely to make someone

else go to sleep by crying. On their observations, it can be said from the constructional view, that any verb appearing in the resultative constructions in (60)–(61) bears affectedness relations with the postverbal NPs. This proposal predicts, as Goldberg and Jackendoff (2004) point out, that (60b) is the only case in our examples where affectedness relations between verbs and postverbal NPs are not established from our world knowledge. The important point here is that any reflexive pronoun contributes to conceptual structure, that is, functions as what is affected. To confirm this, let us take an example from actual usage:

(62) The park-keeper looked at the sleeping form in the buggy. ‘She doesn’t look very upset now.’ ‘No. She cried herself to sleep. Poor love.’ There was a silence.

(N. Hornby, *About a Boy*)

The underlined part in (62) shows that it is possible in this context for a baby to make herself go to sleep by getting tired of crying, as a property that babies usually have. This reinforces the grammaticality of (60a). Let us observe further examples in (63).

(63) a. I tried to wiggle myself comfortable in the passenger seat.

[Linda Barnes, 1995, *Hardware*, New York: Delacorte, p. 35]

b. *I tried to wiggle comfortable in the passenger seat.

(quoted in Rappaport Hovav and Levin (2001: 778))

Notice here that the verb *wiggle* alone does not predict that the manner of action must be interpreted as something caused by the motion. That is, *wiggle* cannot lexically specify the resultant state denoted by the resultative phrase *comfortable*. The contrast in (63) shows that the fake reflexive is necessary for the intended sense as a motion as in (63a), whereas the

resultative without the fake reflexive cannot convey the intended meaning as in (63b). This means that fake reflexive object contributes to a part of the resultative construction's meaning, that is, the literal or metaphorical motion.

I assume here that the fake reflexive serves to play a role in undergoing Path-formation in conceptual structure. That is, the Path is not already established, but rather is created by the mover (subject referent denoted by the fake reflexive). It follows from considerations above that the verbs of manner of motion like *wiggle* affect postverbal NPs and thereby make the mover (postverbal NP) form a Path in conceptual structure when combined with resultative phrases.

It is worth noticing here that there is a parallelism between the fake reflexive in Strong resultatives and the special morpheme *way* in the *way*-construction. This will give us evidence that the fake reflexive in Strong resultatives serves to form a Path in conceptual structure, as *way* in the *way*-construction does. To see this, consider the so-called *way* construction in (64):

(64) John yelled/shouted/moaned his way down the street.

(Takami and Kuno (2002: 81))

This construction severely violates the argument structure of the verb. That is, unergative verbs such as *yell*, *shout*, and *moan* take the fake object *one's way* when combined with the directional PP *down the street*, as is shown by (64). On the projectionist approach, the special morpheme *way* is treated as meaningless, like the fake object in Strong resultatives. However, Omuro (2003, 2008) proposes, following Maranz (1992), that *one's way* is a meaningful element, giving (65) as an evidence.

(65) They made their separate ways to Europe, Pamela going home to England and Gunther to his native Germany. (Omuro (2008: 201))

With respect to the meaning of *their separate ways* in (65), Omuro (2008) points out that there are two separate ways, one for Pamela going to England and the other for Gunther going to Germany, and thereby *way* is used in the plural and the adjective *separate* acts as a transferred epithet. This observation allows us to analyze *way* as a meaningful element, designating the path of motion. Thus, this suggests that there are parallelisms between the fake reflexive and *way* in the following two respects.

First, the fake reflexive and *way* are similar in that they each serve to undergo Path-formation in the conceptual structure of their constructions. Next, as just mentioned above, the adjective *separate* as a transferred epithet modifies two events: Pamela going home to England and Gunther going to his native Germany. This parallels with the whole event readings of *quickly* in the Strong resultatives, as seen in (33), repeated here as (66).

(66) Peter quickly read himself into an inferiority complex, after a few slow deliberate readings of his classmates' theses.

* Manner reading: Peter read quickly.

Whole event reading: Peter quickly developed an inferiority complex.

(Rappaport Hovav and Levin (2001: 776))

In light of this fact, it is reasonable to state that the parallelism with respect to event modification by the transferred epithet and *quickly* stems from the fact that *way* and the fake reflexive contribute to part of the sentential conceptual structure. Here again, this confirms our assumption that a fake reflexive is a meaningful element.

Also, viewed from an aspectual perspective, the fake reflexives and nonsubcategorized NPs in Strong resultatives are both analyzed as affected arguments, whether transitive or intransitive (cf. Tenny (1994)). As mentioned in section 2.1.2, nonsubcategorized NPs function as aspectual delimiters, as identified by the Dowty test, as given in (67).

(67) They drank the teapot dry {in/*for} an hour. (cf. They drank {*in/for} an hour.)

(Rappaport Hovav and Levin (1996: 2))

The same holds of the fake reflexives and nonsubcategorized NPs in Intransitive Resultatives, as in (8b) and (9b), as repeated here in (68a) and (68b).

(68) a. The kids laughed themselves into a frenzy {in/*for} about two minutes.

b. The joggers ran the pavement thin {in/*for} an hour.

(Mihara (2004: 178))

This also suggests that a nonsubcategorized NP is an affected argument, since “an affected argument is one that measure out and imposes delimitedness on the event” (Tenny (1994: 158)).

From these considerations, I conclude in this section that postverbal NPs appearing in the resultative construction are licensed by the constructions themselves rather than verbs; and that postverbal NPs act as what is affected, or an “affected entity” (Anderson (1997); cf. Jackendoff (1990: 129)), and hence contribute to the Path-formation in conceptual structure.

2.4. Conclusion

In this chapter, I have investigated the property of the resultative construction, from the

constructionist approach rather than projectionist approach, briefly introducing constructional ideas and concepts used throughout this dissertation. I have proposed that the postverbal NPs appearing in the resultative constructions are taken as a patient licensed by constructions themselves rather than verbs.

From these considerations, I conclude that the DOR (Direct Object Restriction) is the restriction on the semantic (conceptual) structure rather than on the syntactic structure encoding of unaccusativity as proposed by the Unaccusative Hypothesis, as shown in (69).

(69) The Direct Object Restriction (revised):

The result phrase must be predicated of an affected object.

That is, the conceptual structure is coerced by the constructions themselves, thereby conforming to (69), and thus directly corresponds to the syntactic form [NP V NP AP/PP]. This kind of pairing of a complex grammatical structure with its meaning occurs in the resultative construction.

Notes

* This chapter is a revised and extended version of Morito (2011b), a paper that appeared in *Bulletin of Aichi Institute of Technology* 46, 1–11, and reprinted in *Eigogaku Ronsetsu Shiryo* 45 (1), 138–143.

1. Notice that the same can be said of the fake object with Intransitive resultatives, as in (i).

- (i) a. The joggers ran the pavement thin.
- b. The audience laughed the actors off the stage.

Sato (1987: 93) points out that each of the sentences in (i) entails the meanings in (ii).

- (ii) a. The joggers ran on the pavement.
- b. The audience laughed at the actors.

With regard to Sato's observation, Rappaport Hovav and Levin (2001) suggest that fake objects like *the pavement* and *the actors* are related to unergative verbs like *run* and *laugh* by rules of inference rather than semantic selection from the theta-grid.

2. Within projectional approaches, this aspectual meaning shift is taken as a change in the meaning of verbs. In contrast, on the constructional approaches, the meanings of verbs are the same across all their various usages.
3. A locatum argument is an argument expressing the removal of a substance or a physical object. This term is taken from Clark and Clark (1979).
4. *An apple* measures out the event, in that "some quantity of apple is consumed during each interval of eating, until the apple is entirely consumed" (Tenny (1994: 15)).

Chapter 3

Motion Verbs with Goal Phrases in English

3.1. Introduction

In the previous chapter, we discussed the relationship between verb meaning and the resultative construction in which verbs occur. It was pointed out there that although the postverbal NPs and resultative phrases appearing in Strong resultatives are licensed by constructions themselves rather than verbs, we need to take care about how the verb meanings, not to mention the constructional meanings, license the postverbal NPs and resultative phrases in Weak resultatives. With this in mind, let us investigate in this chapter how the meanings of motion verbs behave in the interaction between motion verbs and constructions by examining verb meanings at length. I will furthermore propose that “motion verbs plus goal phrase” is a more abstract construction which includes the motion, caused-motion, and resultative constructions and that the resultative construction can be seen to be a metaphorical extensions of the caused-motion construction.

It has been observed that motion verbs with a goal phrase in English, exemplified in the sentence *John ran into the park*, express an accomplishment (i.e. directed-motion). What is meant by “directed-motion” is that the location changes as time passes.¹ The aim of this chapter is to investigate the relation between motion verbs and their constructions in order to make clear how the construction has the meaning of directed-motion.

3.2. Preliminaries

3.2.1. Classification of Motion Verbs and Directed-Motion

Before turning to the details of my proposal, I will clarify my classification of motion verbs. Motion verbs have so far been classified by the isolated features/components of meaning which these verbs share, such as “direction,” “manner,” and so on, as in (1).

- (1) a. *arrive class*: arrive, come, go, depart, fall, return, descend, . . .
b. *run class*: run, walk, gallop, jump, hop, skip, swim, . . .
c. *roll class*: roll, slide, move, swing, spin, rotate, . . .

(Levin and Rappaport Hovav (1992: 252))

The members of the *arrive* class in (1a) have been called verbs of inherently directed motion, since their meaning includes an inherently specified direction of motion. For example, *arrive* can have a goal argument because of its inherent meaning as the goal of the movement. The members of the *run* class in (1b) and the *roll* class in (1c) are referred to as manner of motion verbs, since they have meanings that include a notion of manner or means of motion. Notice that they have nothing that reveals direction in their meanings, in contrast with (1a). They fall into two classes in terms of the specific manner or means (Levin (1993: 105–106, 264–267)), as in (1b, c). In addition, Levin (1993: 105–106) proposes there may be other types of verbs, which may take a meaning that involves motion when found with a directional or goal phrase, as in (2).

- (2) a. Waltz Verbs: boogie, cancan, dance, jig, jive, polka, rumba, samba, tango, waltz, . . .
- b. Verbs of Body-Internal Motion: buck, fidget, kick, rock, squirm, sway, teeter, twitch, waggle, wiggle, wobble, wriggle, . . .
- c. Verbs of Sound Emission: battle, bang, beat, beep, burr, chatter, clash, clatter, hiss, gurgle, splash, thump, whistle, . . .

(Levin (1993: 105–106))

Looking closely at (2c), it can be further divided to include (3).

- (3) Verbs of Voice Emission: cry, laugh, sing, talk, sneeze, yell, whisper, . . .

As seen above, three isolated features of meaning, “direction,” “manner,” and “sound emission,” are involved in motion. They figure in the characterization of motion verbs.

Motion verbs can be classified, as summarized in (4).² I will propose that the classification here plays an important role in examining the relation between motion verbs and constructions.

- (4) a. the *arrive*-type verbs: [(+ direction)] (cf. (1a))
- b. the *run*-type verbs: [<manner> (+ direction)] (cf. (1b))
- c. the *wiggle*-type verbs: [<manner> (- direction)] (cf. (1c), (2a, b))
- d. verbs of sound emission: [<sound> (- direction)] (cf. (2c), (3))

3.2.2. Relation between Motion Verbs and Constructions

Motion verbs are different in aspectual interpretation as to whether or not they are

found with a goal phrase, as in (5).

- (5) a. John ran.
b. John ran into the park.³

The verb *run* in (5a) can be interpreted as an activity verb. In contrast, the same verb in (5b) can be regarded as an accomplishment verb (Vendler (1967)). As mentioned in Chapter 2, the change in the verb's lexical semantic interpretation can be checked by the following adverbial test:

- (6) a. John ran {for/*in} 5 minutes.
b. John ran into the park {*/for/in} 5 minutes.

The telic/atelic distinction can be syntactically differentiated through the choice of adverbial: *in 5 minutes* is compatible only with telic events, and *for 5 minutes* only with atelic events. Following Goldberg and Jackendoff (2004) and others, I have assumed throughout the present dissertation, that the goal phrase underlined in (6b) is regarded as a resultative phrase. Thus, (6b) is regarded as an instance of the resultative construction.⁴ Let us now turn to the other classes with goal (or resultative) phrases, as in (7)–(8).

- (7) We arrived at the airport. (Levin and Rappaport Hovav (1995: 58))
- (8) a. Kim ran into the room. (Rappaport Hovav and Levin (2001: 781))
b. Joggers often run themselves sick. (Carrier and Randall (1992: 217))
c. The joggers ran the pavement thin. (Levin and Rappaport Hovav (1995: 53))

As already discussed in Chapter 2, the *arrive*-type verbs in (7) inherently involve goal phrases. In contrast, the *run*-type verbs in (8) can be accomplishment verbs when they appear with goal phrases. That is, the addition of a resultative phrase can be used to map an activity into an accomplishment (Levin and Rappaport Hovav (1995: 62)).

3.2.3. Problems with the Projectionist Approach

As already discussed in Chapter 2, on the projectionist approach, Levin and Rappaport Hovav (1995) propose the constraints on resultative constructions, as in (9).

(9) The Direct Object Restriction (DOR):

The result phrase must be predicated of a direct object.

(Levin and Rappaport Hovav (1995: 34))

This constraint is supported by the unaccusative hypothesis which purports to distinguish between unaccusative verbs and unergative verbs, as in (10).

(10) a. Unaccusative Verb: ___ [VP V NP]

b. Unergative Verb: NP [VP V] (Levin and Rappaport Hovav (1992: 247))

Given the assumption that the caused-motion construction can be regarded as an instance of the resultative construction, it follows that (9) is a constraint on the construction of the motion in question. I will, however, point out again the three problems with this approach, as discussed in section 2.2.2.

First, in the case of verbs of manner of motion, such as the *run*-type verbs, the verb is unergative when it appears without a goal phrase, but becomes unaccusative when it takes a

goal phrase, as shown in (11). This means that goal phrases also affect the verb's argument structure with respect to (10), as shown in (12).

(11) John jumped into the pond.

(12) NP [VP V] → ___ [VP V NP]

In such a case, the sentence's syntax must be altered in accordance with the change in argument structure. A question, then, arises concerning the explanation of the ungrammaticality of (13). (12) wrongly predicts that (13) is grammatical, since the verbs, which are unergative at D-structure, occur with goal phrases at S-structure.

(13) *Penny fretted/laughed/played into the room.

(Rappaport Hovav and Levin (2001: 773))

Second, there are counterexamples to (9) since a resultative phrase is predicated of the subject, as in (14).

(14) a. The wise men followed the star out of Bethlehem.

b. He followed Lassie free of his captors. (Wechsler (1997: 313))

Third, a syntactic device, such as "fake reflexive NP" in (15a) or "nonsubcategorized NP" in (15b) is needed for the DOR in (9). This allows a resultative phrase to be interpreted as if it were predicated of the subject of an unergative verb.

- (15) a. Joggers often run *(themselves) sick.
b. The joggers have run*(the pavement) thin. (Carrier and Randall (1992: 217))

This cannot explain the slight differences in grammaticality between (16a) and (16b) with respect to reflexive NPs.

- (16) a. Robin danced out of the room.
b. ^{??}Robin danced herself out of the room.
(Rappaport Hovav and Levin (2001: 782))

From these considerations, I conclude that there is a problem with the Direct Object Restriction supported by the Unaccusative Hypothesis.

3.3. Proposal

3.3.1. The Compatibility of Motion Verbs with Goal Phrases

As seen above, goal phrases function as resultative phrases when found with motion verbs. The construction “*motion verb + goal phrase*” is thus regarded as the resultative construction. The question then arises as to how motion verbs and goal phrases are combined, designating a directed-motion reading.

In this section, I will show that the relation between motion verbs and goal phrases differs according to my classification of motion verbs in (4). As shown above, motion verbs such as (4a) can have an interpretation of directed-motion without goal phrases. On the other hand, motion verbs such as (4b–d) in combination with goal phrases can give rise to directed-motion meanings. Let us first consider the *arrive*-type verbs in (4a):

(17) John arrived {*to/at} the station. (Tanaka and Matsumoto (1997: 136))

The above example points to the inherent presence of “direction” in the meaning of verbs. Thus, *to*-phrases encoding direction are not needed. This implies that the construction “*Arrive-type Verb + goal phrase*” is literally the motion construction itself.⁵

Second, in the case of (4b), the contrast between English and Japanese shows that the directional reading can be licensed by the verbal form in English, but never in Japanese, when combined with a goal phrase (cf. Yoneyama (1986)).

- (18) a. John ran into the park.
b. *John-wa koen-ni hashitta.
John-Top into the park ran
'John ran into the park'

Third, let us see verbs of sound emission such as (2c) and (3). The members of this verb class also can be combined with goal phrases that designate a directed-motion meaning:

(19) Terry rustled into the room. (Rappaport Hovav and Levin (2001: 781))

Notice here that there are more strict restrictions on the compatibility of these verbs with goal phrases, as shown in (20).

- (20) a. The train screeched into the station.
b. *The dog barked into the room. (Goldberg (1995: 62))

The contrast between (20a) and (20b) shows that the emitted sound can be understood as a result of the movement in (19) and (20a), but not in (20b). The sound (or voice) can thus be interpreted as the result of the motion and as coextensive with the directed motion (Rappaport Hovav and Levin (2001), Goldberg and Jackendoff (2004)).

This section has shown that the relation between motion verbs and goal phrases differs according to my classification of motion verbs in (4).

3.3.2. The Construction [Motion Verbs + Goal Phrases] Results in a Constructional Meaning of Directed-Motion

As seen in the previous section, the core meaning of a verb plus goal phrase has played a role in contributing to directed-motion readings. In this section, we will point out that there are some cases where motion verbs can be combined with goal phrases which express accomplishments only by the use of a nonsubcategorized NP as in (21a), or a fake-reflexive NP as in (21b).⁶

- (21) a. They laughed *(the poor guy) into his car. (Goldberg (1995: 173))
b. Bill sang/cried *(himself) to sleep. (Goldberg and Jackendoff (2004: 546))

A question, then, arises of why this is so. In the following section, I will discuss this problem.

3.3.3. Motion Verbs + Fake-Reflexive NP/Nonsubcategorized NP + Goal Phrases

In this section, let us consider what functions the fake-reflexive NP or nonsubcategorized NP have within this construction. This has already been discussed in section 2.3.5, and will be repeated below. First, see the contrast in (22).

- (22) a. Bill sang Sue to sleep.
b. *Bill cried Sue to sleep. (Goldberg and Jackendoff (2004: 546))

Goldberg and Jackendoff (2004) argue that the contrast between (22a) and (22b) arises from our pragmatic world knowledge. It is possible from our world knowledge to imagine making someone else go to sleep by singing, as in (22a), but not by crying, as in (22b). Fake-reflexive NPs, on the other hand, can be used in both cases, as in (23).

- (23) a. . . . Mrs. Joplin arranged for her to have some private art lessons when she was in the third and fourth grades. As for her musicality, any signs were restricted to the habit of *singing herself to sleep* when she was a young child.

(M. Friedman, *Buried Alive*)

- b. The park-keeper looked at the sleeping form in the buggy. ‘She doesn’t look very upset now.’ ‘No. *She cried herself to sleep*. Poor love.’ There was a silence.

(N. Hornby, *About a Boy*)

The example in (23a) depicts an episode about how a musicality of the young girl (Janis Lyn Joplin, a famous American singer-songwriter in the late 1960s) in her childhood, only showed itself when she sang to herself and fell asleep, which gives us evidence that it is possible to put oneself to sleep by singing. The italicized sentence in (23b) shows that people, particularly babies, can go to sleep by getting tired from crying. (23b) is a reproduction of the actual usage discussed in section 2.3.5 as (62).

Observing further examples, the same can be said about the *wiggle*-type verbs in (4c), as in (24), which is the same as (63a) of section 2.3.5.

(24) I tried to wiggle *(myself) comfortable in the passenger seat.

[Linda Barnes, 1995, *Hardware*, New York: Delacorte, p. 35]

(quoted in Rappaport Hovav and Levin (2001: 778))

Given these facts, I will propose that the occurrence of a fake-reflexive NP or a nonsubcategorized NP with motion verbs observed above, does seem to be constrained by general effects of world knowledge.⁷

3.3.4. Change of Location and Change of State

There are two kinds of change in accomplishments. Consider the following:

(25) a. We arrived at the airport. (Levin and Rappaport Hovav (1995: 58))

b. The bottle broke open. (Kishimoto (2005: 107))

In (25a), the *arrive*-type verb *arrive* specifies a resulting change of location rather than change of state. On the other hand, in (25b), the change-of-state verb *break* specifies a resulting change of state rather than change of location.

With this in mind, consider the *arrive*-type verbs in (4a), as in (26). Given this, it is observed that *arrive*-type verbs and change-of-state verbs, further specify the result inherent in verb's meaning (Tortora (1998)).

(26) a. *Willa arrived breathless. (Levin and Rappaport Hovav (1995: 58))

b. *The bottle broke out of the room. (Kishimoto (2005: 107))

The ungrammaticality exhibited by (26a) is also seen in (26b) with the change-of-state

verb *break*. This demonstrates that *arrive*-type verbs can occur with change of location XP *at the station*, as in (25a), but not with the change-of-state XP *breathless*, as in (26a). In contrast, the ungrammaticality of (26b) shows that the change-of-state verb *break* can occur with the change-of-state XP *open*, as in (25b), but not with the change-of-location XP *out of the room*, as in (26b). Given this, I will propose that it does not further specify the different result state inherent in the verb's meaning. I will suggest that the construction "the *arrive*-type verbs plus goal phrases" as a whole is the literal motion construction itself.

Consider next the manner of motion verbs, such as the *run*-type verbs in (4b) and the *wiggle*-type verbs in (4c). It can be observed that the underlined goal phrases mean not only a change of location (movement to a new location), as in (27a), but also a change of state, as in (27b).

- (27) a. Kim ran into the room. (Rappaport Hovav and Levin (2001: 781))
 b. '... Walk yourself into a coma and see what your subconscious comes up with.'
 (Rappaport Hovav and Levin (2001: 773))

The question then arises as to why this is so, in contrast to the case of the *arrive*-type verbs in (26a). Here, as mentioned above, goal phrases are regarded as resultative predicates when found with motion verbs. Given this, following Tortora (1998: 343–344), I will propose that the change-of-state resultative is understood to metaphorically encode change of location, as illustrated in (28).

- (28) motion → change
 location → state (Goldberg (1995: 83))

The same can be said about verbs of sound emission in (4d), as shown in (29).

- (29) a. The professor talked us into a stupor. (Zubizarreta and Oh (2007: 142))
- b. HENRY: Sir, you are the very forward thinking, and my father is the King of backward. Perhaps you can talk him into the sixteenth century.
(*Ever After*, movie)
- c. SAM: This is it. I don't suppose I could talk you into losing the hat.
(*Ghost*, movie)

Note here that the general systematic metaphor in (28) above cannot occur with the *arrive*-type verbs in (4a) since the meaning of the verbs already change of location.

3.4. Conclusion

It has been shown in this section that motion verbs with goal phrases can give rise to the meaning of motion in a different way according to the classification of motion verbs as in (4).

On the constructional approach, I have proposed that the sense of motion comes from the construction, and not from the verb alone. In other words, the argument structure is determined by the composite effect of the verb and construction, as proposed by Goldberg and Jackendoff (2004).

I have argued how motion verbs and goal phrases are combined:

(i) For the *arrive*-type verbs in (4a): they are compatible with goal phrases, since they inherently have directed motion in the verb's meaning. The construction "*arrive* verb + goal phrase" is the literal motion construction itself.

(ii) For the *run*-type verbs in (4b): the *wiggle*-type verbs in (4c), and verbs of sound

emission in (4d) are compatible with goal phrases as the cause-motion construction, giving rise to the constructional meaning (change of location); and they are also compatible with goal phrases regarded as resultative phrases as in (28), in which the resultative construction designates a constructional meaning (change of state).

From these considerations, I conclude that the ‘motion verb plus goal phrase’ construction is a more abstract construction which includes the motion, caused-motion, and resultative constructions, and that the resultative construction can be seen to be a metaphorical extension of the caused-motion construction.

Notes

- * This chapter is a revised version of Morito (2010), a paper that appeared in *Synchronic and Diachronic Approaches to the Study of Language: A Collection of Papers Dedicated of the Memory of Professor Masachiyo Amano*, 127–138.
1. See Talmy (1985).
 2. Note that manner of motion verbs fall into two classes depending on whether or not their inherent meanings have “direction.” See Levin and Rappaport Hovav (1995).
 3. In what follows, the relevant resultative phrases are underlined.
 4. See Goldberg and Jackendoff (2004). They put together resultative, motional, and other similar constructions into a conglomeration of “resultative family” construction.
 5. Note that the literal motion construction is different from the caused-motion construction. See Goldberg (1995), Goldberg and Jackendoff (2004), and Culicover and Jackendoff (2005).
 6. I will propose that a fake-reflexive NP corresponds to a semantic or conceptual structure element. Note that a fake-reflexive NP is not a syntactic device for the DOR based on

the projectionist approach.

7. It is plausible to analyze a fake reflexive NP or a nonsubcategorized NP as a patient argument in the action tier in the sense of Jackendoff (1990) (cf. Grimshaw (1990)). Tenny (1994) argues that they function as aspectual delimiters.

Chapter 4

Two Types of Accomplishments through the Interaction between Verbs and *into*-Phrases

4.1. Introduction

In the previous chapter, I proposed that the resultative construction and the caused-motion construction are related by a metaphoric link, and hence that these two can be considered instances of a more general abstract construction type: what I will call the verb plus *into*-phrase construction, exemplified in the sentence *John ran into the park*, which expresses accomplishment.

The aim of this chapter is to investigate how this accomplishment is derived in terms of the interaction between verbs and *into*-phrases under the constructionist approach (cf. Jackendoff (1990, 2010), Goldberg (1995), among many others).

Verbs of manner motion are basically activity verbs. However, sentences with verbs of manner motion express accomplishment when *into*-phrases appear in them. In this case, *into*-phrases serve as Goal. This is shown by the contrast of the acceptability in (1), where durative time phrases such as *in an hour* occur.

- (1) a. *I ran in an hour.
b. I ran into the park in an hour.

It is assumed in the sense of Conceptual Semantics (cf. Jackendoff (1983, 1990, 1997a, 2002, 2010), Kageyama (1996), among many others) that the verb plus *into*-phrase construction seen in (1b) serves to yield an accomplishment interpretation. On this view, I will examine the case of aspectual coercion involved in (1b), as mentioned in Chapter 1, and then explore what process occurs in the conceptual structure.

In this chapter, on the basis of the Path-formation in conceptual structure by the interaction between verbs and *into*-phrases, it is shown that accomplishment can be divided into two classes (cf. Rappaport Hovav and Levin (1996)). One class of accomplishment is lexically derived from the inherent meanings of verbs. I will argue that this class of lexically derived accomplishment is classified as either a *break*-type or a *push*-type. The accomplishment that the *break*-type verbs yield is interpreted as a change of state. This class includes verbs such as *break, chip, crash, crush, fracture, rip, shatter, smash, snap, splinter, split, and tear* (cf. Levin (1993: 241)).

In contrast, the second subpart of accomplishment that the *push* verbs yield is interpreted as a change of location. These verbs relate to putting an entity somewhere, typically by moving it in a specific direction. For example, the *pour* verbs such as *dribble, drip, pour, slop, slosh, spew, and spurt* (cf. Levin (1993)) are included in this *push*-type class, and verbs in the *push*-type class do not participate in locative alternation.

I will argue that accomplishment in the other class is syntactically derived from the coercion by the ‘verb plus *into*-phrase’ construction (i.e. the caused-motion construction and the resultative construction).

Along these lines I will propose that Path-formation is carried out syntactically or lexically to yield an accomplishment interpretation. It is shown that the two types of accomplishment explain the optionality of the overtly expressed *into*-phrases. Furthermore, I propose that the relationship between the meaning of words and the conceptual structure of

sentences is important in investigating the ‘verb plus *into*-phrase’ construction throughout this chapter in the following respects.

First, aspectual coercion is obtained with respect to Path-formation on the conceptual structure. It is assumed that Path-formation is carried out through the interaction between verbs and *into*-phrases. Here again, Path-formation can be classified into two types: one type of Path-formation is carried out from the meaning of verbs, while the other type of Path-formation is carried out not from the meaning of verbs, but from the constructional meaning. Accordingly, accomplishment can fall into two types; we refer to the former case as “lexically derived accomplishment” and the latter as “syntactically derived accomplishment.” It is shown furthermore that lexical accomplishment is classified into the *break*-type and the *push*-type.

4.2. Properties of *into*-Phrases

This section gives an overview of the properties of *into*-phrases and how *into*-phrases can be related to the process of Path-formation. I will assume, following Jackendoff (1990) and his notation, that *into*-phrases have the conceptual structure represented as (2).¹

(2) [Path TO [Place IN [Thing]]] (Jackendoff (1990: 45))

Notice that *into*-phrases can delimit an event while *in*-phrases cannot. Notice also that *to*-phrases denote Path and that *in*-phrases have the conceptual structure [Place IN [Thing]] which encodes Place. Based on these properties of *into*-phrases, constructions with *into*-phrases yield an accomplishment reading. To see this, consider (3).

- (3) a. Bill walked to the station. (Kageyama (1997: 109))
b. He walked into it. (Talmy (1975: 212))

The examples in (3) show that *to* in (3a) is pronounced without stress accent, while *into* in (3b) can have a stress accent in spite of being a preposition. In light of this fact, Kageyama (1997: 109) suggests that *into* in (3b) can convey the meaning of Path or Direction in addition to Goal. By contrast, *to* in (3a) denotes only Path. This should imply that *into*-phrases contribute more to the conceptual structure than other prepositional phrases like, for example, *in*-phrases or *to*-phrases, given the generally accepted assumption that stressed elements are meaningful. Kageyama (1997: 109) also points out that *into* has different properties from other prepositions, and hence we cannot describe these properties only with the representation like “TO IN.”

So far we have seen that *into* has a different contribution from other prepositions to conceptual structure. In the next section, I will show how these properties of *into*-phrases can interact with verbs.

4.3. Interactions between Verbs and *into*-Phrases

Let us now consider (4) to investigate how the process of interaction between *into*-phrases and verbs can be done in conceptual structure.

- (4) a. John pushed the ball into the hole.
b. John pushed the ball in the hole. (Zubizarreta and Oh (2007: 148))

In (4a), the *into*-phrase denotes part of a change of location (i.e. motion), thus forming an

instance of the caused-motion construction, which is interpreted as accomplishment. In contrast, (4b) is not interpreted as accomplishment and thus cannot be an instance of the caused-motion construction. The reason is that the *in*-phrase here functions only as location in conceptual structure. However, notice that sentences with *in*-phrases can be construed as accomplishments and hence form instances of the caused-motion construction when an appropriate context is given, as shown in (5).

(5) Michael pushed the car in the ditch. (Ramchand (2008: 15))

Verbs under a strict interpretation allow a simple locative prepositional phrase like the *in*-phrase in (5) to name a final location.² In this case, *push* lexically specifies CAUSE, which in turn infers Path-function TO [_{Path} TO], which in turn infers Place-function IN [_{Place} IN [_{Thing}]]. I will argue that this process will allow conceptual structure to yield an accomplishment interpretation. This process will be discussed in more detail later.

In contrast, sentences with the unergative verb *dance* plus *in*-phrases cannot participate in the caused-motion construction, as shown in (6a). It is generally assumed that unergative verbs like *dance* cannot be accomplishment since unergative verbs are basically activity verbs, which do not lexically entail a change of state. On the other hand, in the case of (6b), Path-formation can be carried out when unergative verbs are combined with *into*-phrases. That is, the compatibility of unergative verbs with *into*-phrases serves to yield accomplishment readings in conceptual structure.

(6) a. *Michael danced Karena in the room. (Ramchand (2008: 115))
b. I danced her into the bedroom. (J. Rosen, *Eve's Apple*)

The resultative construction could be expected to be compatible with *into*-phrases, but not with *in*-phrases, because it has an accomplishment meaning, as seen in (7b). This can be seen in the typical case of activity verbs. In contrast, in the case of lexically derived accomplishment from verbs in (7a), verbs themselves can lexically entail a change of state when combined with *in*-phrases, since Path-formation is carried out by verbs themselves, just like *push*, as discussed in the preceding section.

- (7) a. John broke the stick {in/into} pieces.
b. John pounded the metal {*in/into} pieces. (Ono (2011: 131))

It follows from (6) and (7b) that there are parallels between the caused-motion construction and the resultative construction. Notice here that there are two cases in undergoing Path-formation: one case is that verbs with *in*-phrases can undergo Path-formation without overtly expressing *into*-phrases, and the other case is that *into*-phrases must be obligatory in syntax. In the next section, it is shown that this can be explained in terms of the process of Path-formation.

4.4. Lexically Derived Accomplishments from Verbs

In this section, I will explore why Path-formation can be carried out by *in*-phrases in addition to *into*-phrases in (7a) and (5), repeated here as (8a) and (8b), respectively.

- (8) a. John broke the stick {in/into} pieces. (= (7a))
b. Michael pushed the car {in/into} the ditch. (= (5))

I will show that the lexically derived accomplishment shown by *break*-type verbs in (8a) can be distinguished from the lexically derived accomplishment shown by *push*-type verbs in (8b) with respect to Path-formation.

4.4.1. Lexically Derived Accomplishments from *break*-Type Verbs

The verb *break* in (9a) inherently means a change of state since its meaning specifies the action of agent leading up to the result state in which the stick is broken into pieces. The lexical conceptual structure of the verb *break* inherently further specifies the result state denoted by the PP *into pieces*. The important point here is that *to* in *into pieces* need not necessarily be overtly expressed. This suggests that the endpoint of the change-of-state denoted by *to* is already inherent in *break*'s meaning as its essential part, and *to* can therefore be omitted in syntax, thanks to the meaning of the verb *break*. Thus I will propose the Path-formation by the verb *break*, as shown in (9b).

- (9) a. John broke the stick {in/into} pieces. (= (8a))
- b. [Event CAUSE ([Thing JOHN], [Event GO ([Thing STICK],
[Path TO ([Place IN [Thing PIECES]])]])]]

The verb *break* lexically specifies CAUSE, GO, TO-function, and IN-function. In other words, the meaning of the verb *break* lexically includes these functions, in particular, TO-function.

4.4.2. Lexically Derived Accomplishments from *push*-Type Verbs

In this section, I will investigate lexically derived accomplishment from *push*-type verbs. To see this, consider the contrast of acceptability observed in (10).

- (10) a. *The wrestler pushed/thrust his opponent unconscious.
b. The wrestler knocked his opponent unconscious. (Kageyama (1998: 123))

The verb *push* in (10a) can be classified as an activity verb like *knock* in (10b) (cf. Kageyama (1996)).³ However, there is a difference between *push* and *knock*: *push* does not take a resultative phrase expressing a change of state as in (10a), but *knock* does, as in (10b).⁴ According to Kageyama (1996), the verb *push* has a movement reading and hence lexically specifies a change of location, but not a change of state. Verbs of motion such as *arrive* cannot occur with the adjective *breathless* to receive a change-of-state interpretation, as shown in (11).

- (11) *John arrived breathless. (Levin and Rappaport Hovav (1995: 58))

This suggests that the prepositional phrase as a resultative phrase canonically expresses a spatial path/configuration, while the adjective phrase canonically expresses a property.

Now, let us turn to the verb *push*. The same can be said about the verb *push*, in that the verb *push* is incompatible with the adjective *dead* expressing a change of state.

- (12) *He pushed her dead. (cf. Kageyama (1998:124–125))

By contrast, the verb *push* can appear with the prepositional phrase *to one's death*, as shown by (13).

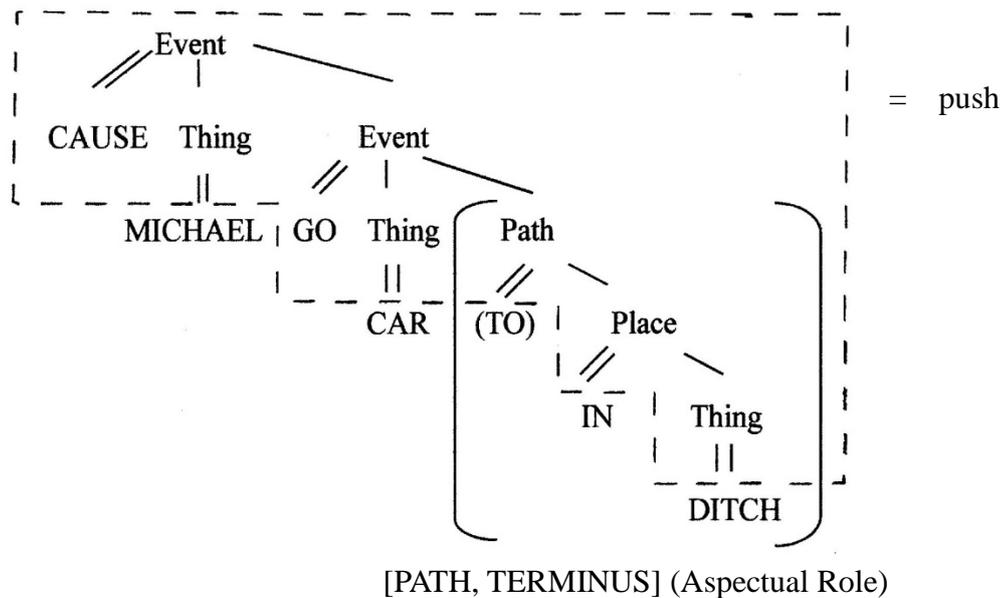
- (13) He pushed her to her death. (she necessarily moves) (Goldberg (1991: 372))

As Goldberg (1991: 372) points out, the prepositional phrase *to her death* is an idiom which metonymically stands for “the place where she died.” (13) implies that she literally moves from the spot, becoming a physical trajectory. The meaning the verb *push* manifests is roughly “caused motion.” This is confirmed by example (14), which is an instance of the caused-motion construction, that Goldberg (1991: 372) discusses.

(14) He pushed her through the window to her death. (Goldberg (1991: 372))

This behavior of the resultative phase combined with *push* suggests that the verb *push* lexically entails a change of location. I will propose, therefore, that the conceptual structure of (8b) is represented by (15). I represent the conceptual structure by the notation adopted from that used in Jackendoff (1990). The dashed-line in (15) shows the contribution of *push* to conceptual structure.

(15) Michael pushed the car {in/into} the ditch:



I will propose here that the *push*-type verbs have a different lexically derived accomplishment from the *break*-type verbs. The verb *push* lexically involves CAUSE, which composes a subevent encoding action with a subevent encoding a change of location. Notice that the lexically derived accomplishment from the *push*-type verbs differs from that of the *break*-type verbs in that the verb *push*, for example, lexically specifies CAUSE by its contact force, while the verb *break* inherently entails CAUSE.⁵ As mentioned in the previous section, the verb *break* inherently specifies CAUSE, GO, and BE in order to lexicalize a change-of-state component, while the verb *push* lexically specifies CAUSE, which in turn infers GO, which in turn infers TO, which in turn infers IN, in accordance with the configuration of conceptual structure, which is composed of argument-predicate structure.⁶ The reverse inferences do not hold.

For example, as pointed out by Jackendoff (1990: 185), various Path-prepositions incorporate Place-function since the upper Path-function allows us to infer the lower Place-function in conceptual structures such as [Path TO [Place IN [Thing]]]. In this process of lexically derived accomplishment from *push*, a sentence with *push* receives an accomplishment interpretation. This suggests that *into*-phrases are optionally realized in syntax since the meaning of a change of location is licensed by the meaning of *push*, rather than by its corresponding to the syntactic form [P into]. The process of a lexically derived accomplishment from *push* is represented in (16), as Tenny (1994) points out.

(16) *push*: [(PATH, TERMINUS)], e.g.:

[] Bill pushed the rock (but it wouldn't move).

[PATH, TERMINUS] Bill pushed the rock to the top of the hill.

- Verbs indicating an enforced change of location, like *push*

(Tenny (1994: 108))

Notice that in (16) events are measured out and delimited by PATH and TERMINUS, while events with increment-theme verbs like *eat* are measured out by an incremental object, as shown in (17).

(17) eat: [(MEASURE)], e.g.:

[] William ate the same apple for hours.

[MEASURE] John ate an apple in an hour.

• incremental-theme verbs like *eat* (Tenny (1994: 107))

Taking (17) into consideration, the *into*-phrases in (15) function as PATH and TERMINUS to receive the accomplishment interpretation. Note that *the car* in (15) is THEME, rather than PATH.

4.4.3. *push*-Type Verbs

In this section, the lexically derived accomplishment from the verb *push* discussed above is confirmed by showing that there is a class of verbs based on the LCS (Lexical Conceptual Structure) of the verb *push*: *push*-type verbs. The prototype of *push*-type verbs involves the lexical derived accomplishment of the verb *push*. For example, consider *stuff*, shown in (18).

(18) a. She stuffed some books {in/into} a bag. <pushing reading>

b. He stuffed paper {in/into} the hole.

As shown in (18), *in*-phrases can make sentences with *stuff* verbs receive an accomplishment interpretation without explicit *into*-phrases. It is commonly assumed that *stuff* verbs are

classified into what we usually call the *spare/load* verbs which denote putting. And *spare/load* verbs can be classified into *pour*-type verbs.⁷ Sentences with *pour* verbs receive a change of location interpretation rather than change of state,⁸ as illustrated in (19).

- (19) a. Tamara poured water into the bowl.
b. *Tamara poured the bowl with water. (Levin (1993: 51))

I will assume here that *pour*-type verbs have the conceptual structure *push*-type verbs typically have, since *push* is used to infer a change of location rather than a change of state, as mentioned in the previous section. For example, we find examples like the following, where *pour* can occur with an *in*-phrase:

- (20) I poured water in my glass as did Mr. Singh. (E. Hemingway, *True at First Light*)

I have suggested above that there is a class of verbs whose LCS is based on the prototypical LCS of the verb *push*. Similarly, it can be shown that there is another class of verbs whose LCS is based on the LCS typified by *put*, parallel to the LCS typified by *push*. Thus, I propose, from a localist perspective (cf. Gruber (1976), Jackendoff (1990, 2010)),⁹ that the LCS of verbs are generally based on the prototypical LCS of spatial verbs which denote a change of location or position (e.g. *put*, *push*, *pull*).¹⁰ To make matters concrete, consider (21).

- (21) *Terry wiped the dust. (Kageyama (1996: 246))
(cf. *I put the book.)

With the *wipe* verbs,¹¹ a location argument must be overtly expressed when the theme (i.e. the moved object) is expressed as object, as pointed out by Levin and Rappaport Hovav (1991). With the verb *wipe*, I assume here that the verb *wipe* has an LCS based on that of *put* since *wipe* behaves like *put* in allowing obligatory expression of its location argument.

Furthermore, the *put*-type verbs cannot have a motion meaning when associated with an *in*-phrase rather than an *into*-phrase. This means that, as Jackendoff (1990) pointed out, *push* lexically specifies Path-functions like TO-function, while *put* lexically specifies Place-functions like IN-function. Thus, *put* cannot allow a motion reading which is overtly expressed as *into*. I propose, as has been discussed, that *pour* verbs can be instantiations of *push* verbs with respect to the behavior of *into*-phrase.

4.5. Syntactic Accomplishments Derived by Constructions

In this section I will propose that there is another type of accomplishment which is different from lexically derived accomplishments discussed above. To see this, consider (7b) and (6a), repeated here as (22).

- (22) a. John pounded the metal {*in/into} pieces. (= (7b))
b. Michael danced Karena {*in/into} the room. (= (6a))

The verbs *pound* and *dance*, in their transitive uses in (22), denote accomplishment events, because there is a culmination denoted by *into*-phrases. Notice that unergative verbs like *pound* and *dance* themselves do not entail the Path in the LCS of their verbs, denoted by *into*-phrases. In other words, a semantic category like Path is not part of the meanings of these verbs, since these verbs need not imply that their subjects have traversed a Path.

Now, the question to be raised here is where *into*-phrases come from and how they can be licensed. To see this, let us look at the paraphrases of (22) in (23).

- (23) a. John caused the metal to break into pieces, by pounding (it).
 b. Michael took Karena into the room with him, by means of dancing.

The paraphrases in (23) show that the meaning of main verbs is treated semantically as a means or manner modifier. This process is termed “lexical subordination” by Levin and Rapoport (1988). This process involves that there is an actual inversion of head–subordinate relations in (22). I will assume here that they are taken to be one instance of a resultative construction, since the resultative construction is normally assumed to be used to solve the mismatch between syntax and semantics (i.e. the inversion of head–subordinate relations). In fact, Levin and Rappaport Hovav (1995) point out that manner of motion verbs undergo the process of lexical subordination when they occur with *into*-phrases. According to Jackendoff (1990), meaning through the process of lexical subordination can be licensed by corresponding rules which link syntactic structures with conceptual structures. The correspondence of conceptual structure to syntactic structure can be formalized as a corresponding rule of the form shown in (24).

(24) *GO*-Adjunction Rule:

[_{VP} V_h . . . PP] may correspond to

$$\left[\begin{array}{l} \overline{\text{GO}} ([\alpha], [\text{Path} \quad]) \\ \text{AFF} ([\quad]^{\alpha}_i, \quad) \\ \text{[WITH/BY [MOVE ([\alpha])]}_h \end{array} \right]$$

(Jackendoff (1990: 224))

This rule can be applied to the cases in (25) below:

- (25) a. Willy wiggled/danced/spun/bounced/jumped into Harriet's arms.
b. Willy went/got into Harriet's arms (by)
wiggling/dancing/spinning/bouncing/jumping.

(Jackendoff (1990: 223))

The important point here is that Path-formation is coerced into conceptual construction by (24). This makes the semantic category Path not denoted by verbs license the syntactic category PP like *into*-phrase. Notice that *into*-phrase must be overtly expressed, as shown in (26).

- (26) Willy wiggled/danced/spun/bounced/jumped { *in/into } Harriet's arms.

As Jackendoff (2010: 273) points out, (26) can be regarded as an instance of a more general abstract construction type which is obtained through the process of lexical subordination (i.e. the resultative construction and the caused-motion construction), as illustrated by (27).

- (27) Verb Subordination Archi-Construction:

a. [VP V . . .]

b. 'act (by) V-ing'

(Jackendoff (2010: 273))

Similarly, in this view, the sentence in (22a) can be considered as another instance of the same construction, since (22a) means roughly (23a). I will assume here that the accomplishment shown in (22a) to be a process of syntactic accomplishment, as shown by (28).

(28) John pounded the metal { *in/into } pieces. (= (22a))

[_{VP} V_h NP_j [into NP]_k] may correspond to

$$\left[\begin{array}{c} \text{[Event CAUSE ([Thing JOHN], [Event GO ([Thing METAL]_j,} \\ \text{[Path TO ([Place IN [Thing PIECES]])])]}_k \text{ [BY [POUNDING]_h])]} \end{array} \right]$$

(28) suggests that the verb is integrated into the construction allowing the *into*-phrase (i.e. [Verb + *into*-phrase]), rather than determining the construction, and the construction itself licenses part of the complement structure. In the case of (28), we understand the conceptual structure to be coerced into having an accomplishment meaning (cf. Pustejovsky (1995), Ono (2005)). Notice here that in order for coercion to be possible, the *into*-phrase must be syntactically expressed, since the *into*-phrase marks the construction; and therefore, the meaning ‘accomplishment’ is coerced by corresponding to a syntactic form such as [Verb + *into* NP]. In other words, the syntactic form *into* can be related to the Path-function in conceptual structure by the corresponding rule as in (27). The subevent encoding change of state/location can be coerced by the construction allowing *into*-phrases. I refer to this type of accomplishment in (22) as syntactically derived accomplishment. The syntactically derived accomplishment in (22b) is given in (29).

(29) Michael danced Karen { *in/into } the room. (= (22b))

[_{VP} V_h NP_j [into NP]_k] may correspond to

$$\left[\begin{array}{c} \text{[Event CAUSE ([Thing MICHAEL], [Event GO ([Thing KAREN],} \\ \text{[Path TO ([Place IN [Thing ROOM]])])]}_k \text{ [BY [DANCING]_h])]} \end{array} \right]$$

(30) is a so-called fake object resultative, where a fake reflexive occurs even when unselected by verbs. Here again, the *into*-phrase must be syntactically expressed: this is actually an instance of the construction in (27).

- (30) ‘. . . Walk yourself {*in/into} a coma and see what your subconscious comes up with.’
(Rappaport Hovav and Levin (2001: 773))

So far I have argued that the syntactically derived accomplishment is different from the lexically derived accomplishment.

4.6. Conclusion

It has been argued in this chapter that the interpretation of accomplishment is derived lexically and syntactically by the interaction of verbs and *into*-phrases. This is summarized in the form below:

- (31) a. [x CAUSE [BECOME [y <STATE>]]]
(*break*-type lexically derived accomplishment; e.g. (8a))
- b. [[x ACT <MANNER>] CAUSE [BECOME [y <STATE>]]]
(*push*-type lexically derived accomplishment; e.g. (8b) / syntactically derived accomplishment; e.g. (22))

(cf. Rappaport Hovav and Levin (1998: 108))

To be more specific about the Path-formation discussed above, let us use more concrete representations by using conceptual structure notations adopted from those used in Jackendoff

(1990), as in (32).

- (32) a. [Event CAUSE ([Thing x], [Event GO ([Thing y], [Path TO ([Place IN [Thing]])]])])
(*break*-type lexically derived accomplishment; e.g. (8a))
- b. [Event CAUSE ([Event [x ACT <MANNER>]], [Event GO ([Thing y],
[Path TO ([Place IN [Thing]])]])])
(*push*-type lexically derived accomplishment; e.g. (8b) / syntactically derived
accomplishment; e.g. (22))

By understanding change of state metaphorically in terms of movement to a new location (i.e. change of location), BECOME can be taken to be GO (see Chapters 2 and 3 for details). This means that there are striking parallels between a change of location and a change of state, as was discussed in section 4.3. Note that the Path denoted by the *into*-phrases serve as the second argument of the GO-function. What is important here is that the conceptual structures in (31) are formed by the interaction between the verbs and the *into*-phrases. (8a, b) are lexically derived accomplishments, in that the verb itself lexically entails the conceptual structure in (31a). In contrast, in (8b) and (22), the verbs lexically specify the first subpart of conceptual structure [x ACT <MANNER>] and the ‘verb plus *into*-phrase’ construction (i.e. the resultative construction and the caused-motion construction) specifies the second subpart of conceptual structure involving partly the meaning denoted by the *into*-phrase [Event GO ([Thing y], [Path TO ([Place IN [Thing]])])].

So far, I have shown that there are significant differences between the Path-formation by the verb and the Path-formation by the construction. In the case of the former type, the Path-formation is carried out in conceptual structure inherently entailed by the *break*-type verbs, or the Path-formation is carried out by inference in accordance with the possible

conceptual configurations of the *push*-type verbs. By contrast, in the latter, Path is coerced by the ‘verb plus *into*-phrase’ construction. Furthermore, with respect to the obligation of overtly expressing *into*, in the case of lexically derived accomplishment, *into* is not necessary overtly expressed since *into* is entailed by the LCS of the verb, while in syntactically derived accomplishment, *into* must be overtly expressed, because *into* serves as a marker of a specialized syntactic form [Verb + *into* NP].

Notes

- * This chapter is a revised and extended version of Morito (2013a), a paper that appeared in *KLS* 33, 228–239, which itself was a revision of a paper presented at the 37th Annual Meeting of The Kansai Linguistic Society, held at Konan Women’s University, June 2–3, 2012.
- 1. In the discussion that follows, I will use conceptual structure notations adapted from those used in Kageyama (1996), Levin and Rappaport Hovav (1995), and in particular Jackendoff (1990).
- 2. In the case of *push*, I assume the *other stuff* as called by Jackendoff (2012) to be an experience through the process of perception. The reason for this stems from the fact that *push* is used only in the space field and hence *push* occurs only with *into*-phrases designating path of motion (i.e. change of location). In fact, *push* can participate in the locative alternation, but not in the dative alternation, which means that *push* entails a change of location, not a change of state.
- 3. ‘x act on y’ denoted by the verbs of touch and contact is represented as [x ACT-ON y] in Kageyama (1996).
- 4. It is generally assumed that location is canonically described by prepositions like *at* and

in, while state is canonically described by adjectives.

5. Notice that *touch* has a weaker force than *push*, and hence *touch* does not lexically specify CAUSE. The reason for this is that *touch* does not compose a subevent denoting a change of state, as shown by the ungrammaticality of examples like **He touched the door open*, contrasting with the grammaticality of *He pushed the door open*.
6. Notice that the semantic selection by inference rule is done in accord with the configuration of conceptual structure, as discussed in section 4.3. Therefore, it is necessary to distinguish semantic selection by inference rule from semantic selection by the LCS of verbs as seen in the contrast of the grammaticality of *The vase broke {to pieces/*worthless}* (Jackendoff (1990: 240)). See Jackendoff (1990) for the rule of inference.
7. The *pour* verbs are given in (i).
 - (i) Pour Verbs: dribble, drip, pour, slop, spew, spill, spurt, . . . (Levin (1993: 115))
8. The alternation in (19) is called the locative alternation (cf. Rappaport and Levin (1988), Pinker (1989), Levin (1993), Goldberg (1995), Kishimoto (2001), among others). It appears to me that (15) is an instance of the *pour* verbs.
9. From a localist perspective, change of state is understood as encoding a metaphorical change of location (cf. Gruber (1976), Jackendoff (1990, 1992)).
10. I have classified caused-motion verbs into two groups: the *push*-type and the *pull*-type. The former will be discussed by examining the Push Open construction in Chapter 5, and the latter will be discussed by examining the V *the hell out of* construction in Chapter 6.
11. The *wipe* verbs are given in (i) and (ii).
 - (i) Wipe Verbs: dribble, drip, pour, slop, spew, spill, spurt, . . . (Levin (1993: 115))

(ii) buff, brush, erase, file, mop, pluck, prune, rake, rinse, rub, scour, scrape, scratch, scrub, shear, shovel, sponge, sweep, trim, vacuum, wipe, . . .

(Levin and Rappaport Hovav (1991: 131))

Chapter 5

The Push Open Construction:

He pushed open the door

5.1. Introduction

It is generally held that the majority of resultative expressions cannot occur with the underlined resultative phrase placed before the postverbal NP, as shown in (1). However, this is not strictly true.

- (1) *He closed shut the door. (Goldberg (1995: 97))

Some of the instances of the resultative construction, as observed by Bolinger (1971), allow the resultative phrase to occur either before or after the postverbal NP, as can be observed in (2).¹

- (2) a. He pushed the door open.
b. He pushed open the door. (Bolinger (1971: 83))

At first blush, this seems to be analyzable as instances of the verb-particle construction since the test used in (2) is a criterion for the verb-particle construction. But the verb-particle construction allows particles with an aspectual interpretation which are not a predicate on the

NP argument, as pointed out Goldberg (1995: 97–98):

(3) He cleaned the mess up. \nRightarrow The mess is up. (Goldberg (1995: 98))

In contrast, in the case of (2a), *open* functions as a predicate on *the door*. In light of this fact, Goldberg (1995: 97) proposes that examples in (2) are understood to inherit from two independently existing constructions (i.e. the caused-motion construction and the resultative construction). That is, (2) is understood as a particular construction having conflicting specifications from two (or more) dominating constructions related by multiple inheritance links.²

As opposed to this position, this chapter will show that (2) (henceforth the Push Open construction) is a special case of the resultative construction related by a ‘subpart’ instance link and that it can also be viewed as an idiomatic expression (i.e. a “constructional idiom” in the sense of Jackendoff (1990)). Notice here that I will argue that the Push Open construction is a proper subpart of the Weak resultatives (as called by Washio (1997)), where a result phrase further specifies the nature of a change already implied by the verb. I will also propose along related lines that Weak resultatives can further fall into two classes with respect to how the nature of the state can be specified: one process is that the Lexical Conceptual Structures (LCSs) of verbs themselves inherently specify the nature of change, while in the other process the verb’s LCS specifies the nature of change by inference. I will demonstrate that the Push Open construction uses the latter process. Furthermore, it is demonstrated that the process is done by an inference on the configuration of the conceptual structure. I will also show that the verb *push* lexically specifies a change of location denoted by *open* in the Push Open construction. This is explained by inference through the interaction between *push* and *open* in the conceptual construction, and not by the Unique Path

Constraint proposed by Goldberg (1995).

This chapter is organized as follows. In section 5.2, I will show that *open* is a constant and denotes a change of location through the interaction between *push* and *open* in the conceptual construction of the Push Open construction. In section 5.3, I will propose a system of inference in the conceptual structure on the Push Open construction. Finally, I will conclude the chapter by summarizing our discussion.

5.2. Interactions between *push* and *open* in the Conceptual Structure

In the Push Open construction, as already stated, the adjective *open* may appear not only in the post-object position as in (2a), but also in the pre-object position or immediately after the verb *push* as in (2b). To explain this property of the Push Open construction, I will show explain that this property stems from special instances of the resultative construction, Weak resultatives in particular, which are lexically derived from the meaning of *push* itself, rather than instances of the verb-particle construction. Furthermore, I will introduce another subclass of Weak resultatives involving the Push Open construction, which is distinct from Weak resultatives in the sense of Washio (1997), by examining the interaction between the *push*'s meaning and the *open*'s meaning in the conceptual structure.

5.2.1. *open* as a Constant of *push*

According to Washio (1997), the resultative construction can be divided into “Weak” and “Strong” resultatives, based on whether or not a result phrase further specifies the nature of a change already implied by the verb. In this view, let us consider how *open* as a resultative phrase contributes to the lexical meaning of the verb *push* in the Push Open construction. Notice here that *break* verbs encoding a change-of-state, such as *break*, *cut*, *rip*,

tear, *spread*, and *split*, can similarly take *open* as a result phrase (cf. Kageyama (1998: 121)) as shown in (4).

- (4) The people affirmed there did a man come in there, and swore they would *break open* the door. (D. Defoe, *Moll Flanders*)

Sentences with *break* verbs plus *open*, such as those in (4), can be analyzed as instances of Weak resultatives, since *open* further specifies the nature of a change already implied by the verb *break*. It is commonly assumed, under the predicate decomposition approach, that verbs of change of state in their causative use have predicate decomposition consisting of a predicate representing the notions of cause and change (i.e. CAUSE and BECOME; cf. Jackendoff (1976, 1983, 1990), Van Valin and LaPolla (1997), Croft (2001, 2012), among others). According to this analysis, for example, the representation for (5a) can be given as (5b). The resultant state relevant to *break* verbs (i.e. *small pieces*) given in bold face capital letters acts as a “constant” (cf. Kageyama (1998)).

- (5) a. The vase broke into small pieces.
 b. [x CAUSE [y BECOME [y BE AT-[Property **SMALL PIECES**]]]]³

It is assumed that *open* is the specific state already inherent in the meaning of *push* and hence serves as a constant, just like (5a). In a similar way, the meaning of the verb *bleach* can be given in (6).

- (6) a. Will it bleach white the undies? (Shimada (1985: 26))
 b. [x CAUSE [y BECOME [y BE AT-[Property **WHITE**]]]]

The idiosyncratic element of the lexical meaning of the verb *bleach* (i.e. *white*), then, is represented as a constant.

In contrast, most instances of Weak resultatives use variables to represent the idiosyncratic element of the lexical meaning of the verb, contrasting with the Push Open construction, as shown in (7).

- (7) a. It will paint the fence {white/green/blue/red}.
b. [x CAUSE [y BECOME [y BE AT-[Property]]]]

Notice here that (7) suggests that *paint* entails not a white state but a colored state, unlike *bleach*.

- (8) *Will it paint white the fence? (Shimada (1985: 26))

It should be apparent from the contrast in acceptability observed between (6a) and (8) that adjectival resultative predicates can immediately follow the verb when they serve as a constant rather than a variable. The important point here is that the majority of adjectival resultative predicates in Weak resultatives act as variables, but that they act as constants in the special instances of Weak resultatives. In the light of this fact, I will propose that the Push Open construction is one of the special instances of Weak resultatives.

In Strong resultatives, by contrast, adjectival resultative predicates cannot follow the verb immediately, contrasting with Weak resultatives, as shown below:

- (9) *She cried {out/dry} her eyes. [Strong resultatives] (Kageyama (2001: 174))

The reason for this is that a typical unergative verb like *cry* in (9) denotes activity, but does not inherently entail the change and the resultant state. That is, unergative verbs cannot lexically specify the change and the resultant state, since they don't have [BECOME [BE AT]] in their lexical meanings. We will assume here from the contrast between Weak resultatives (6a) and Strong resultatives (8), that in Weak resultatives such as (6a), resultative predicates incorporate into verbs, and hence can follow verbs immediately. This is confirmed by the same fact which obtains in the case of (4), where resultative phrases can immediately follow verbs, as shown in (10).

- (10) a. They break open the door. (= (4))
 b. [x CAUSE [y BECOME [y BE AT-[**OPEN**]]]]

Again, in (10b) *open* acts as a constant of the BE-function that is part of the meaning of *break*, just like (6b), where **WHITE** serves as a constant that is part of the meaning of *bleach*.

On the basis of the discussion so far, let us now proceed to consider the Push Open construction. *Push* is included by Levin (1993: 137–138) under verbs of exerting force (e.g. [?]*draw, heave, jerk, press, pull, push, shove, [?]thrust, tug, yank*), since these verbs relate to the exertion of force on an entity. They denote an activity, but do not entail a resultant state in the properties they show. The important point here is that *push* differs from other verbs basically related to “exerting force” (e.g. *knock, shake, kick, squeeze, touch, wipe*), in that *push* has an even stronger force. This can be seen by the fact that certain verbs in the class basically related to exerting force are incompatible with *open*, as in (11).

- (11) a. *He touched open the door.
 b. *Carrie touched the door open. (Levin (1993: 155))

The verb *touch* in (11) is included by Levin (1993: 155) under verbs of contact, which includes such verbs as *caress, gaze, kiss, lick, nudge, pat, peck (= kiss), pinch, prod, sting, stroke, tickle, and touch*. These verbs express actual physical contact with another object with weaker force being exerted than in the case of *push*. The unacceptability in (11) suggests that the incompatibility of *open* with verbs depends on the strength of exerting forces, contrasting with the compatibility of *open* with *push* in the Push Open construction. In light of this fact, it is reasonable to state that the exerting force of *push* lexically serves to establish a relation between the activity denoted by *push* and the resultant state as part of the inherent meaning of *open*. According to Jackendoff (1990: 133), “X push (on) Y” can be paraphrased with CAUSE: “X CAUSE Y to go away from X.” This suggests that *push* can be described as a lexical causative verb. I will assume here that exerting force serves as CAUSE in the conceptual structure, and hence that *push* lexically specifies CAUSE by the strong force exertion *push* entails. The conceptual structure is given in (12).

(12) Conceptual Structure of the Push Open construction:

[x ACT-ON y] CAUSE [y BECOME [y BE AT-[OPEN]]]⁴

The important point here is that *push* lexically specifies CAUSE in contrast to the verbs in Strong resultatives. Moreover, the Push Open construction is included under Weak resultatives like (10), since *push* lexically specifies CAUSE as the verb *break* in (10) does. Notice here that the resultant state expressed by *open* in (10) is entailed by the verb, but *open* in (12) is not, as will be discussed at length in the next section.

On the other hand, in the case of Strong resultatives, CAUSE is not entailed by verbs, unlike in the Push Open construction, as in (13).

(13) They drank the pub dry.

(Rappaport Hovav and Levin (2001: 788))

CAUSE in Strong resultatives is semantically coerced by the construction as in the resultative construction, not by the verb. The postverbal NP and the result phrase in Strong resultatives are not semantically selected by the verb. The conceptual structure of Strong resultatives is given in (14).⁵

(14) Conceptual Structure of Strong resultatives:

[x ACT] CAUSE [y BECOME [y BE AT-z]]

So far I have proposed that *push* lexically specifies CAUSE and that it also specifies *open* as a constant of BE-function, and thus that the Push Open construction can be represented as in (14).

5.2.2. Spatial Meaning of *open* Lexically Specified by *push*

In this section, I will argue that *open* has a spatial meaning since it is lexically specified by *push* in the Push Open construction.

5.2.2.1. Exerting Force Verbs and *open*

According to Kageyama and Yumoto (1997: ch. 3) and Kageyama (1998), the majority of exerting force verbs are compatible with resultative phrases which denote a state achieved by the NP they are predicated of, as shown in (15).

- (15) a. He kicked an empty can into the river.
 a'. She kicked him awake.
 b. She knocked all the pins down.
 b'. The blow knocked him senseless.
 c. She shook the crumbs from the tablecloth.
 c'. The dog shook itself dry. (Kageyama (1998: 122))

In particular, the data in (15) shows that *kick*, *knock*, and *shake* are compatible with resultative phrases which express a property, as in (15a', b', c'), and a spatial path/configuration, as in (15a, b, c). On the other hand, in contrast with (15b'), *push* and *thrust* are incompatible with resultative phrases which express a property such as *unconscious*, as can be seen in (16a).

- (16) a. *The wrestler pushed/thrusted his opponent unconscious.
 b. The wrestler knocked his opponent unconscious. (cf. (15b'))
 (Kageyama (1998: 123))

Notice here that the verb *push* is compatible with *open* in the Push Open construction, as seen in (2a) (repeated here as (17)), though it cannot appear with *unconscious*, as just stated.

- (17) He pushed the door open. (= (2a))

This suggests that *open* expresses a spatial path/configuration when used in the Push Open construction, though adjectives are canonically assumed to express a property.^{6,7}

5.2.2.2. Motion Verbs and *open*

In this section it is shown that *open* expresses a spatial path/configuration when combined with motion verbs. This confirms that *push* behaves as a motion verb in the Push Open construction and thus lexically specifies a spatial path/configuration denoted by *open*. To see this, consider (18).

(18) a. *Willa arrived breathless.

b. We arrived at the airport. (Levin and Rappaport Hovav (1995: 58))

Verbs of inherently directed motion like *arrive* (e.g. *advance, arrive, ascend, climb, come, cross, depart, descend, enter, escape, exit, fall, flee, go, leave, plunge, recede, return, rise, tumble*; Levin (1993: 263)) cannot occur with resultative phrases like the adjective *breathless*, which express a property or a change of state. That is, as pointed out by Levin and Rappaport Hovav (1995: 58), (18a) cannot mean that Willa became breathless as a result of arriving. On the other hand, the grammaticality in (18b) indicates that resultative phrases like the PP *to the station* express a spatial path/configuration, and hence are part of the meaning of motion verbs. The contrast of acceptability in (18) suggests then that APs canonically specify a property and PPs canonically denote a spatial path/configuration.

Importantly, in contrast, the adjective *open* is compatible with manner of motion verbs like *swing*, as shown in (19).

(19) The lock clicked and the door swung open

(J. K. Rowling, *Harry Potter and the Philosopher's Stone*)

The grammaticality of (19) suggests *open* can express a spatial configuration (i.e.

disconnection) even though *open* is an adjective, when accompanied by a verb of motion. In other words, *open* further specifies part of the spatial meaning of the motion verb. Also, the adjectives *shut* and *high* behave like *open* when combined with verbs of motion, as can be seen in (20).

- (20) a. They fell backwards—Harry slammed the door shut, . . .
b. At once, the black ball rose high in the air and then pelted straight at Harry’s face.

(J. K. Rowling, *Harry Potter and the Philosopher’s Stone*)

In (20a), the adjective *shut* expresses part of the spatial meaning of the verb *slam*, and in (20b), *high* expresses part of the spatial meaning of the verb *rise*.

I have so far argued that the adjective *open* can express a spatial path/configuration when accompanied by verbs of motion.

5.2.2.3. *push* and *open*

The discussion so far suggests that *push* has the property of both exerting force verbs and motion verbs when accompanied by *open*. Thus, the verb *push* can make the adjective *open* express a spatial path/configuration when combined with *push*. That is, *push* has a spatial meaning since verbs of exerting force and verbs of motion belong to the class of spatial verbs, and hence can take a complement encoding part of the meanings of the verb, such as *open*. This suggests that the Push Open construction is a special instance of Weak resultatives, on the view that the caused-motion construction can be reduced to the resultative construction (cf. Tortora (1998), Jackendoff (2010)).⁸ However, it is not clear how *push* interacts with *open* and makes *open* have a spatial meaning as part of the meaning of *push*. In the next section, I will propose a solution to this problem.

5.3. Proposal

We have so far shown in section 5.2.1 that *open* acts as a constant of *push* and in section 5.2.2 that *open* is semantically coerced into a spatial meaning by *push* through the interaction between *push* and *open*. In this section, I will investigate what this process is like and how *push* and *open* interact with each other in the Push Open construction.

5.3.1. Lexical Causation in the Push Open Construction

We have seen in the preceding sections that there are crucial limitations on the availability of resultative phrases combined with the verb *push*. This suggests, as already stated, that the verb *push* lexically specifies an endpoint in the change of location denoted by the resultative phrases. That is, the sense of caused motion comes from the way in which the construction combines semantically with the verb *push*. Based on these properties, the conceptual construction of the Push Open construction can be represented as (21).

(21) Conceptual Structure of the Push Open construction (revision of (12)):

[x ACT-ON y] CAUSE [y BECOME [y BE AT-[Place **OPEN**]]]

In particular, (21) represents that *open* expresses Place, rather than Property, information not specified in (12).⁹

I will propose here that *push* lexically specifies a change of location by the inference on the conceptual structure in (21). To see this, let us compare the conceptual structure of a motion verb like *swing* with *open*, as in (22a), with that of the Push Open structure, as in (22b). Note that the arrow indicates the direction of operation.

- (22) a. x swing open y: \uparrow [x CAUSE [y BECOME [y BE AT-[Place OPEN]]]] \uparrow
- b. x push open y: [x ACT-ON y] CAUSE [y BECOME [y BE AT-[Place OPEN]]]
-

(22a) and (22b) both are similar in that they are analyzed as instances of lexical causation, entailing CAUSE lexically specified by verbs. However, there are crucial differences. In (22a), the LCS of *swing* itself entails the resultant state denoted BECOME/BE, as indicated by the arrows at the beginning and end of the inference chain. To put it differently, (22a) represents the meaning of *swing open* as a whole. On the other hand, in the Push Open construction, (22b) says that *push* lexically specifies CAUSE, which is composed of [x ACT-ON y] and [y BECOME [y BE AT-[Place OPEN]]]. That is, (22b) is taken as a complex event structure which consists of a causing event encoded by the base verb *push* and a result subevent encoded by the result phrase *open*. Notice here that *swing* in (22a) lexically specifies CAUSE inherent in the meaning of the verb, while *push* in (22b) specifies CAUSE by the force exertion expressed by the verb. For BECOME/BE, *swing* lexically specifies BECOME/BE in the inherent meaning of the verb, just like CAUSE.

In contrast, as discussed in Chapter 4, CAUSE lexically specified by *push* infers BECOME, which in turn infers BE, according to the configuration of conceptual structure which is composed of argument–predicate structure, as indicated by the arrows in (22b). The reverse inferences do not hold.

In what follows, I will show that the Push Open construction can be licensed by the interaction between *push* and *open* in the conceptual structure with a process like (22b) operating on (21).

5.3.2. *push open* and the Unique Path Constraint

It has been observed by a number of researchers (see Simpson (1983), Goldberg (1991), Levin and Rappaport Hovav (1995), among many others) that there is a constraint on the combination of resultatives and goal phrases. Crucially, Goldberg (1995: 82) proposes a constraint on the occurrence of resultatives, as shown in (23) (see also section 2.3.3).

(23) The Unique Path (UP) Constraint:

If an argument X refers to a physical object, then no more than one distinct path can be predicated of X within a single clause. The notion of a single path entails two things: (1) X cannot be predicated to move to two distinct locations at any given time *t*, and (2) the motion must trace a path within a single landscape.

(Goldberg (1995: 82))

To consider the relevance of the UP constraint, let us see (24).

(24) *Sam tickled Chris {silly off her chair/off her chair silly}. (Goldberg (1995: 82))

The stipulation that a motion must occur within a single landscape forces us to rule out (24), which would combine the resultative *silly* with the directional phrase *off her chair*, regardless of their sequence. From the view of lexical semantics, Kageyama (1996, 1998) argues that the effect of the UP constraint can be derived from the schema of conceptual structure in (25).

(25) [BECOME [[] BE AT-_{[Place/Property}]]] (Kageyama (1998: 120))

(25) suggests that the argument of AT-function is Place or Property, as is shown by

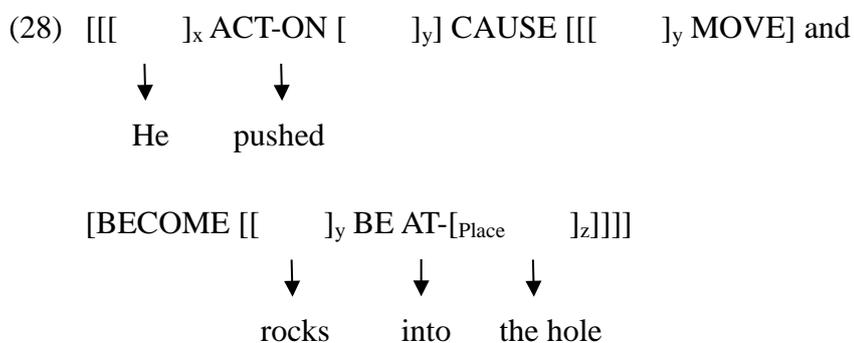
“AT-[Place/Property]].” This explains the contrast of grammaticality in (26).

- (26) a. He became {*at school/rich}.
 b. He arrived {at his destination/*breathless}. (Kageyama (1998: 120))

In (26), the verb *become* lexically specifies Property, while the verb *arrive* lexically specifies Place. With this in mind, consider (27).

- (27) He pushed rocks into the hole.

(27) can be assumed, following Kageyama and Yumoto (1997), to have the conceptual structure illustrated by (28).



(cf. Kageyama and Yumoto (1997: 167))

This means that *push* composes the subevent that expresses a change of location.

Furthermore, Kageyama provides the examples which cannot be explained by the UP constraint, as is shown in (29) below.

- (29) a. Given the simplicity of the criteria for beating an opponent—forcing him down or out—it might seem that a bad call would be out of the question. [W. Long, *Sumo*]
- b. If I'd forced him into conversation earlier, . . . [R. O. Butler, *The Trip Back*]
- c. *They forced the building to bits.
- d. *They forced their enemies dead.

(quoted in Kageyama (1998: 124–125))

The contrast of grammaticality between (29a, b) and (29c, d) shows that *force* can allow resultative phrases like *down/out* and *into* which denote location, but cannot allow resultative phrases that denote state. According to Kageyama (1998), this can be explained by the lexical property of the verb *force*, but cannot be explained by knowledge of the world. This is because *force* means force exertion, and does not entail a resulting state of location.

Now, bearing Kageyama's above proposal in mind, let us proceed to consider the Push Open construction. It is shown by Kageyama that the verb *push* lexically specifies a resulting change of location, just like the verb *force*. From this, we can confirm in our view that verbs like *push* and *force* are similar in that they bear the affectedness relation on their NP objects and hence that they lexically specify CAUSE. I will assume here that they fall into the type of verbs typified by the LCS of *push*. To see this, consider (30).

- (30) The burglar forced the door (open). (Kageyama (1998: 126))

This means that the door was opened by an exertion of force even when *open* is omitted.¹⁰ Here again, (30) can be used as evidence in support of our analysis of the Push Open construction, since the same can be said about the Push Open construction, as seen in (31).

(31) John pushed the door (open).

(31) suggests that there is something pragmatically possible about the door being open by pushing, without *open* overtly expressed, since we can infer by the property of the door that the door is opened or closed.

I have so far shown that *push* in the Push Open construction lexically specifies a resulting change of location. Moreover, I have argued that this is explained by the inference process on the interaction between the verb *push* and the resultative *open* in the conceptual structure, and not by a cognitive constraint like the UP constraint.

5.3.3. *push open the door vs. push shut the door*

In this section, I will argue that *open* is lexically specified by *push* through the inference process on the conceptual structure, as opposed to the case of *shut*. For example, let us now consider (32).

(32) a. He pushed open the door.

b. ? He pushed shut the door.

(Bolinger (1971: 83))

This suggests that there is a difference between *push open* and *push shut*. As Bolinger (1971) pointed out, it is quite easy to find *push open* in actual use as in (33), but *push shut* is a little less likely.

(33) I wasn't even quite dry as I *pushed open* the center door of Dillon.

(E. Segal, *Love Story*)

The reason here, according to Bolinger (1971: 81), is that *push open* reflects the purpose of the action “to open by pushing” and that “to open by pushing” is pragmatically more common than “to shut by pushing” which can be denoted by *push shut*.

With respect to the contrast between *push open* and *push . . . open*, the former is a single activity, while the latter would be appropriate only if ‘being open’ follows ‘pushing’ with the passage of time. *Push shut* is less appropriate than *push open* because ‘pushing’ and ‘being shut’ happening at the same time is pragmatically less common. The important point is that *push open* reflects “action,” while *push . . . open* expresses “result” (to push toward an open position).

At first blush, from the above fact, it looks as if *push . . . open* could be considered instance of the resultative construction, while *push open* cannot be. This suggestion can be a problem with our analysis that *push open* and *push . . . open* can both be treated as a special sort of the resultative construction. However, in *push open* and *push . . . open* we can find similar facts that will suggest that they are both considered special instances of the resultative construction. To see this, consider first (34).

- (34) a. *John pushed open the heavy door, but it didn’t move.
b. *John pushed the heavy door open, but it didn’t move.

(Nagano and Shimada (2010: 87))

(34) shows that *push open* is similar to the corresponding *push . . . open* in that it disallows cancellation. This observation suggests that these two can be considered instances of the resultative construction because the typical resultative construction cannot be cancelled either, as can be seen in (35).

- (35) a. *John pulled off the leeches, but they still stick to him.
b. *John pulled the leeches off, but they still stick to him.

(Nagano and Shimada (2010: 91))

From an aspectual view, the similarity in (34a) and (34b) can be attributed to the function of *open* as an aspectual delimiter (cf. Tenny (1992)).

To give another piece of evidence for my proposal that *push open* and *push . . . open* can be considered special instances of the resultative construction, examine their close paraphrases, as illustrated in (36).

- (36) a. push open NP = to open NP by pushing
b. push NP open = to make NP become open by pushing

In these paraphrases, the correspondence between syntactic and conceptual structure is very regular in that the main verb *open* appears in a subordinate clause. The paraphrases in (36) then suggest *push open* and *push . . . open* can both emerge as special instances of the resultative construction, which can be lexically subordinated to solve the mismatch between syntactic and conceptual structure, as can be schematized in (37).

- (37) [_{VP} V NP AP/PP], ‘make NP become AP/PP, by V-ing’

(Culicover and Jackendoff (2005: 35))

We have so far argued that *push open* and *push . . . open* can both be considered special instances of the resultative construction. The important point here is that in these two, the verb *push* lexically specifies *open* by an inference on the configuration of the conceptual

structure. It follows from this that there is something pragmatically more coherent with a door opening as a result of its being pushed than with a door shutting as a result of its being pushed. This means that *push* lexically specifies CAUSE, which in turn infers BECOME, which in turn infers the argument of BE, like *open/shut* by an inference on the configuration of the conceptual structure.¹¹ This inference process can be computed online. Thus, the Push Open construction can be regarded as a sort of constructional idiom, from a constructional view.¹²

5.4. Conclusion

This chapter has showed that the Push Open construction (e.g. *He pushed open the door*) is a special case of the resultative construction, in that the Push Open construction has a conceptual structure determined through the lexical conceptual interaction between *push* and *open*. I have argued that *push* has a lexical conceptual structure which can lexically specify CAUSE, BECOME, and BE by rules of inference, based on a special case of the resultative construction.

I have also showed that *open* is semantically changed into a Place meaning by coercion, and pragmatically functions as a constant in the conceptual structure when it occurs with *push*.

Based on the investigation of the process of the conceptual structure of the Push Open construction, it has been proposed that the Push Open construction belongs to a subclass of the resultative construction which has a prototypical conceptual structure with a pragmatic process, which has been shown in the Push Open construction in this chapter.

Notes

- * This chapter is a revised and extended version of Morito (2013b), a paper that appeared in *Papers from the 13th National Conference of the Japanese Cognitive Linguistics*, 224–236.
1. In this chapter, the focus is more on (2b) than on (2a), as the title “The Push Open Construction: *He pushed open the door*” suggests. This is because I want to propose that (2b) can be considered a special instance of the resultative construction, which has not yet been accepted by a lot of researchers.
 2. Besides *push open*, Goldberg (1995: 97–98) cited *cut short* as an example. With respect to multiple inheritances, Jackendoff (2002: 184–185) pointed out that it is possible to set up networks with multiple inheritances. However, it is not clear which constructions can be involved in networks with multiple inheritances.
 3. In this chapter, I use a representation of conceptual structure adopted from those used in Kageyama (1996), Rappaport Hovav and Levin (1998) and in particular, Jackendoff (1990).
 4. [x ACT ON y] is a representation used by Pinker (1989) and Kageyama (1996), which represents a subevent denoting an activity. [BECOME [y BE AT]] represents a subevent denoting a resultant state. In particular, Kageyama (1996) uses [x ACT-ON y] for “force exertion of x to y” denoted by verbs of contact and [x ACT] for durative activity denoted by typical unergative verbs. Jackendoff (1990) uses [CAUSE ([{EVENT/THING}, EVENT])] and represents activities as the first argument of CAUSE, that is, EVENT.
 5. Rappaport Hovav and Levin (1998: 108) proposed that the conceptual structure of accomplishment can be divided into two classes: [x ACT _{<MANNER>}] CAUSE [BECOME [y <STATE>]] and [x CAUSE [BECOME [y <STATE>]]]. Along these lines, the

conceptual structure of (12) is assumed to be the latter.

6. It is generally held that Place can be presented by prepositions like *at/in* and State by adjectives. Notice here that the meaning of *open* in the Push Open construction is assumed to be coerced by the Push Open construction into Place, regardless of its syntactic status (i.e. adjective). See Pustejovsky (1995) for coercion.
7. To show that *open* in the Push Open construction denotes a resultant place, Kageyama (1998) cited the following example:

- (i) He pushed the door open into the moon-striped kitchen.

[J. Updike, *A Sandstone Farmhouse*] (quoted in Kageyama (1998: 129))

The reason for this is that *into* is a typical preposition denoting a spatial relation, and hence that *open* itself means Place.

8. See Tortora (1998) and Goldberg and Jackendoff (2004). Viewed from a localist perspective, change of state can be understood as a metaphorical change of location (cf. Gruber (1976), Jackendoff (1990), among others). Along these lines, the caused-motion construction can be considered the resultative construction.
9. The conceptual category “Place” shows that *open* denotes place.
10. *The Oxford English Dictionary* (2nd ed., 1989) gives the following as one of the definitions of *force*:

- (i) To break open (a gate, etc.); to break (a lock); [†]to pierce (armour). Also *to force open*. (s.v. ‘force, v.¹’, def. 6b)

Kageyama (1998) points this out and goes on to note that it is not clear why the implication of ‘a gate’ or ‘a lock’ should arise here. Kageyama further suggests that the dictionary definition of ‘opening’ could be a derived significance from a more basic form

force . . . open, where the ‘opening’ is implied by the omission of *open* from this basic form.

11. What I mean by selection by inference is selection operating on conceptual structure by rules of inference. Notice that this is not a semantic relation, as can be seen in the following:

(i) The vase broke {to pieces/*worthless}. (Jackendoff (1990: 240))

See Jackendoff (1990) for rules of inference. Besides *open*, examples of adjectives with the *push*-type are *clear*, *free*, and *loose* (cf. Nagano and Shimada (2010: 90)).

12. Morito (2013b) proposes that the typical caused-motion verb can be divided into two classes: *push*-type verbs and *pull*-type verbs. A constructional idiom based on *pull*-type verbs is the V *the hell out of* construction in Chapter 6, contrasting with the Push Open construction based on *push*-type verbs in Chapter 5.

Chapter 6

The V *the hell out of* Construction

6.1. Introduction

This chapter examines the construction illustrated in (1), which I will call “the V *the hell out of* construction.”¹

- (1) I {beat/kicked/annoyed/punched/surprised/irritated} the hell out of him.

(Hoeksema and Napoli (2008: 348))

(1) shows that this construction is an idiom containing a certain transitive verb, immediately followed by the taboo term *the hell* plus *out of*, syntactically schematized as “V *the hell out of*,” and connoting intense activity.

The V *the hell out of* construction shares general properties with some of other idiomatic intensifier constructions (e.g. the body-part *off* construction and the fake resultative construction; see Chapters 5 and 2 respectively) in the semantics of their direct objects, as can be seen in (2).

- (2) a. *I scared the hell.
b. I scared the hell *(out of him).

The property shown in (2) suggests that the verb *scare* cannot license the direct object *the hell*

unless the PP ‘*out of NP*’ is also present. The point here is that *the hell* is licensed by the V *the hell out of* construction itself, not by the verb.

Crucially, the V *the hell out of* construction has peculiar properties of its own,² which cannot be seen in some of the other idiomatic intensifier constructions. That is, V and *the hell* act as variables; whereas *out of* is lexically fixed, and hence functions as a constant.³

In this chapter, I will investigate the V *the hell out of* construction under a constructional approach (cf. Jackendoff (1990, 1997a, 2002, 2010), Goldberg (1995), Culicover and Jackendoff (2005)), since this construction cannot be explained by the verb itself, as already seen in (2). Furthermore, I will show that the V *the hell out of* construction can be licensed through the interaction between verbs and *the hell out of* in the conceptual structure, based on the property that V and *the hell* act as variables and that *out of* as a constant must be overtly expressed.

6.2. Function and Syntactic Position of *the hell*

According to Hoeksema and Napoli (2008: 347), the V *the hell out of* construction originally comes from “a literal exorcism (*beat the devil out of someone*), where *the hell* substitutes for *the devil*, and semantic bleaching ultimately made the literal sense give way to simple emphasis.” Similarly, Konishi (1981: 203–204) points out, from the perspective of usage, that *the hell* in the V *the hell out of* construction functions as an intensifier, just like *goddam*. To see this, consider the following:

- (3) scare the hell out of somebody → * scare somebody out of the hell/devil

The impossibility of the paraphrase in (3) indicates that *the hell* cannot be read literally when used in the V *the hell out of* construction.⁴

To give other examples of the intensifier usage of *the hell*, we can take up the case where an interrogative *wh*-pronoun immediately precedes the taboo word *the hell* (e.g. *What the hell . . . ?*), or the case where *the hell* is used in a sentence expressing change of location as illustrated in (4).

- (4) Let's get the hell out of this cow town. (Hoeksema and Napoli (2008: 348))

I will, following Hoeksema and Napoli (2008), henceforth call (4) the GET-THE-HELL-OUT construction, or G-construction for short.⁵

Notice here that the V *the hell out of* construction and the G-construction are both used to express a 'physical/psychological motion.' The point here is that the two constructions differ radically in the transitivity of their verbs: that is, the verbs in the V *the hell out of* construction have a transitive subcategorization, whereas the verbs in the G-construction have an intransitive subcategorization. Moreover, what is important is *the hell* behaves differently when used in the two constructions, as follows:

- (5) a. They scared *(the shit) out of me.
b. They got (the hell) out of the car. (Hoeksema and Napoli (2008: 352))

(5) shows that *the hell* in the V *the hell out of* construction is obligatory, whereas *the hell* in the G-construction is not. Next consider the contrast seen in (6).

- (6) a. Jones got/had the shit kicked out of him (by them).
b. *John got/had the hell stayed away from him.

(Hoeksema and Napoli (2008: 352–353))

The contrast of the grammaticality in (6) stems from the possibility of passivization. The object *the hell* in the V *the hell out of* construction can undergo *get/have* passivization, while *the hell* in the G-construction cannot. This means that the object *the hell* in the V *the hell out of* construction can be affected by verbs, provided that passive requires the object to be affected.⁶

In light of these facts, we can say that the object *the hell* in the V *the hell out of* construction can be affected by verbs as in (6), but cannot be semantically selected by verbs as in (2a).

6.3. Function of *the hell out of*

In this section, I will investigate how the V *the hell out of* construction is construed as having an intensifier interpretation through the interaction between verbs and the configuration *the hell out of* in the conceptual structure.^{7, 8} To see this, let us consider (7).

- (7) “. . . Does this bore you? It bores the hell out of me.” “It does not bore me. I never heard it understandably before.”

(E. Hemingway, *Across the River and into the Trees*)

This shows that the verb *bore* in (7) can appear in the V *the hell out of* construction, although the verb in isolation does not inherently encode an intensifying interpretation of caused-motion. What is interesting here is that an intensifying interpretation of caused-motion reading is implied when the verb *bore* is combined with the configuration *the hell out of*.

Similarly, as observed by Ando (2007), the same can be said about the G-construction:

- (8) a. He banged the hell out of the room.
b. No wonder you're flunking the hell out of here.

[J. D. Salinger, *The Catcher in the Rye*] (quoted in Ando (2007: 22))

Both *bang* and *flunk* in (8a) and (8b) do not inherently have the reading of motion in isolation, let alone encode the intensifying interpretation of motion. Yet, when these verbs are used in the G-construction, an intensifying interpretation of motion is implied.

What needs to be recognized to account for these cases is a particular process of “coercion” (see Pustejovsky (1991), Jackendoff (1997a, 2012) for coercion). That is, the intensifying interpretation of motion/caused-motion not inherent in verb's meaning can be coerced by the construction itself, where combined with the configuration *the hell out of*. This is confirmed by the paraphrase of the underlined part in (7) below:

- (9) It drives me crazy with boredom.

This paraphrase indicates that lexical subordination is possible with the V *the hell out of* construction. This means that coercion is involved in the V *the hell out of* construction,⁹ since the process of lexical subordination can be used as a coercion to solve the mismatch between form and meaning.¹⁰

Based on the discussion above, I claim that the meaning coerced by *the hell out of* is the intensifying interpretation of caused-motion, in the V *the hell out of* construction.

6.4. Prototypical Conceptual Structure of *the hell out of*

Based on the discussion so far, I will propose that the V *the hell out of* construction has a conceptual structure typified by the lexical conceptual structure of *pull*. The reason for this

is that the verb *pull* is a typical causative verb expressing change of location by separating, as shown by the paraphrase in (10).

(10) X pull (on) Y out of Z = X CAUSE Y to go toward X out of Z

(cf. Jackendoff (1990: 133))

The verbs in the V *the hell out of* construction, only when used within the construction, can be given the conceptual structure of (10). *The hell* corresponds to Y, which is affected by the subject X, and hence can be in the object position. For a syntactic form to correspond to (10), *the hell* must be overtly realized as a direct object (cf. Jackendoff (1990: ch. 7, ch. 11)) and *out of* must be overtly expressed as a Path. From this, it is safe to say that the V *the hell out of* construction is a constructional idiom, which is formed on the basis of the conceptual structure of lexical causative verbs which express change of location by means of separating, typified by *pull*.

I will propose here that the prototypical verbs of caused-motion can be divided into two classes. One is the *pull* verb expressing motion by means of separating, the other is the *push* verbs expressing motion by force exertion. Parallel to the V *the hell out of* construction, the construction based on the conceptual structure typified by *push* is given in (11).

(11) I danced her *(into the bedroom).¹¹

(J. Rosen, *Eve's Apple*)

This construction also is coerced since this undergoes lexical subordination as in (12).

(12) I took her into the bedroom with me, by means of dancing.

Notice here that *into* can correspond to *out of* in the V *the hell out of* construction as a Path. As Jackendoff (1990: 223–225) points out, the sentence *John jumped into Harriet's arms* can be coerced into having a movement interpretation by an overtly expressed *into*-phrase, a parallel of *out of*, in the V *the hell out of* construction.

6.5. Extension of *the hell out of*

In the case of the G-construction, *the hell* acts as an adverbial intensifying SOURCE of movement denoted by [PP out of NP]. On the other hand, in the case of the V *the hell out of* construction, *the hell* can be extended to being an affected thing (i.e. patient), provided that transitivity makes the movement described extend to a caused-movement. From the perspective of semantic field, given that caused-motion in the space field can be extended to that in the psychological field (cf. Jackendoff (1990: 139–142)), verbs of psychological impact such as *scare* and *frighten*, can occur in the V *the hell out of* construction. The constructional meaning of the V *the hell out of* construction comes from a metaphor of caused-motion by separating.

6.6. Conclusion

I have shown that the V *the hell out of* construction is construed as having an intensifying interpretation through the interaction of verbs and *the hell out of* in the conceptual structure. I have proposed that *the hell out of* acts as having the interpretation of the caused-motion, being coerced by the construction itself.

Notes

- * This chapter is a revised and extended version of Morito (2012b), a paper that appeared in *Eigo Goho Bumpo Kenkyu* 19, 183–189.
1. As pointed out by Ando (2007: 21–28), this construction is often used by American writers, and hence is an Americanism (e.g. *He used to scare the hell out of us* (quoted in Ando (2007: 21) from J. D. Salinger’s *The Catcher in the Rye*)). Similarly, Konishi (1981) treats *the hell out of* as an American usage when immediately followed by a direct object.
 2. Jackendoff (1997a) treats the V *the hell out of* construction as a VP constructional idiom based on the resultative construction.
 3. According to Omuro (2005) and Hoeksema and Napoli (2008), their corpora say that the verbs which appear in the V *the hell out of* construction are as follows:
 - (i) a. *scare/frighten*-type: scare, annoy, frighten, irritate, . . .
 - b. *beat*-type: beat, knock, kick, . . .(ia) lists verbs of psychological impact, and (ib) lists verbs of contact. The taboo terms that appear in *the hell* position are also listed therein as follows:
 - (ii) taboo term: daylights, hell, Satan, spots, bejesus, . . .
 4. Ando (2007: 27) points out that, provided that *the hell* has semantic content, the following paraphrase is possible:
 - (i) scare the life/daylights out of somebody = scare somebody out of his wits/senses
 5. Ando (2007: 23) calls (4) A-type and Hoeksema and Napoli (2008) the G-construction, in contrast to the V *the hell out of* construction.
 6. There is no semantic selection regarding the thematic relation between the verb *scare* and

the taboo word *the hell*. However, there is an affected relation between them in the action tier (in the sense of Jackendoff (1990)).

7. The ungrammaticality of **the hell from out of* predicts that *the hell* is merged with *out of*, and hence *the hell out of* is a constituent.
8. Yoshikawa and Igarashi (2011) pointed out that Hoeksema and Napoli (2008) identified 124 verbs which can appear in the V *the hell out of* construction as follows:
 - (i) admire, advertise, amuse, annoy, badmouth, bash, batter, beat, belt, bend, bite, . . . , whip, worry
9. See Pustejovsky (1995).
10. Ando (2007: 23) points out that the G-construction, too, can undergo lexical subordination as can be seen from the good paraphrase of (8a) into “He gets the hell out of the room by banging.”
11. I checked its grammaticality with a native speaker of English.

Chapter 7

On the Body-Part *off* Construction: Its Difference from the Resultative Construction

7.1. Introduction

There are particular syntactic configurations in English termed the body-part *off* construction,¹ of which typical examples are given in (1).²

- (1) a. Pat sang/drank/sewed *his heart out*.
b. Terry yelled/wrote/programmed *her head off*.

(Culicover and Jackendoff (2005: 32))

The italicized parts in (1) have the syntactic frame schematized as V *one's body-part(s) off*, in which a certain specific class of verbs take as object a body part expression with a bound pronoun (henceforth, the body-part NP), immediately followed by the particle *off*. To most English speakers, the VP configuration V *one's body-part(s) off* seems like an idiomatic combination (Sawada (2000), Culicover and Jackendoff (2005)).

The body-part *off* construction has specific properties. First, as Culicover and Jackendoff (2005) pointed out, the VP configuration V *one's body-part(s) off* means approximately “intensely and/or excessively.”³ To see this, consider (2).

- (2) Roflmao.⁴ You may laugh normally, and you may laugh *your head off*, and you laugh around 5 or more times a day.

(July 2011, from <http://skin.bebo.com/Profile.jsp?MemberId=2245352576>)

As sentences expressing the manner of laughing are conjoined, (2) shows that *your head off* here has the function of an adverbial, just like the underlined parts (i.e. *normally* and *around 5 or more times a day*). Notice here that this configurational pattern is construed as having effect of emphasizing the excess of an activity denoted by the verb *laugh*.

Next, the body-part *off* construction allows an atelic reading, but not a telic reading (cf. Glasbey (2003, 2007), Jackendoff (2010)). Let us see (3).

- (3) a. Sue worked her butt off {for/*in} an hour.
b. The frog sang his heart out {for the whole night/*in a night}.

(Jackendoff (2010: 244))

As is evident from (3), *V one's body-part(s) off* can be associated with a durative PP like *for X time*, but not with a telic PP like *in X time*. This fact indicates that these expressions are atelic, or that they describe nondelimited events, to use Tenny's (1994) terms.

Despite their special properties mentioned just above, the body-part *off* construction is generally taken to be an instance of the resultative construction (cf. Levin and Rappaport Hovav (1995)).⁵ Here are two reasons to assimilate the two constructions. First, the body-part *off* and the resultative construction are similar with respect to syntactic forms. The other reason is that the body-part *off* construction shares many general properties with the resultative construction, in particular, with the intransitive resultative.

In this chapter, however, I will show that the body-part *off* construction has syntactic

and semantic peculiarities of its own, and that cannot be reduced to the resultative construction. I will propose in section 7.2 that there are crucial differences between the body-part *off* construction and resultative constructions with respect to aspect and idiomaticity. In section 7.3, I will investigate Body-Part NPs and the particle *off* in the body-part *off* construction respectively, to see how the above properties of the body-part *off* construction emerge.

7.2. Differences between the Body-Part *off* and Resultative Constructions

In this section, I will claim that the body-part *off* construction is different from the resultative construction, and hence that the body-part *off* construction cannot be an instance of the resultative construction.

7.2.1. Aspect and the Body-Part *off* Construction

The resultative construction can be lexically subordinated, as sketched in (4).⁶

- (4) [_{VP} V NP AP/PP], ‘cause NP to become AP/go PP by V-ing (it)’

(Jackendoff (2010: 273))

According to (4), the meaning of the verb is treated semantically as a means or manner modifier (i.e. the clause to the left of BY). Recall here that this process is called “lexical subordination” by Levin and Rapoport (1988) (see section 4.5). This process accounts for the paraphrase of (5a) as (5b), and hence indicates that the resultative construction has a resulting reading.

- (5) a. The critics laughed the show out of town.
b. “The critics got the show out of town by laughing (at it)”

(Jackendoff (1990: 233))

It is clear by using the aspectual test above that an expression with a resulting meaning allows an accomplishment interpretation, as can be seen in (6).⁷

- (6) The audience laughed the actor off the stage in/*for ten seconds.

(Espinal and Mateu (2010: 1402))

By contrast, the body-part *off* construction cannot undergo lexical subordination, as shown in (7).

- (7) She worked her butt off {for/*in} an hour.

(cf. (7) does not mean *she made her butt come off by working*, which is telic.)

(Jackendoff (2010: 244–245))

The compatibility with *for*-phrases and the compatibility with *in*-phrases indicate that this expression can allow an activity interpretation, but not an accomplishment interpretation. In fact, the examples of the body-part *off* construction associated with *for*-phrases are readily available in various corpora, as is clearly observed in (8).

- (8) After walking my heart out for 20 minutes, I cool down by limping home.

(R. O’Donnell, *Rosie* 128)

On the other hand, it is difficult to find examples of the body-part *off* construction associated with *in*-phrases. This indicates that their atelicity can be proved by compatibility with *for*-phrases.

I will now give three further pieces of evidence of the body-part *off* construction having an activity interpretation.

First, Kageyama and Yumoto (1997: 144–145) pointed out that the semantic effect of a reduplication of an unergative verb is to carry a more adverbial force than its single use, denoting intense and passionate activity. If this is really the case, then the body-part *off* construction has an activity interpretation, since the reduplication of an unergative verb is possible, as the underlined part in (9a) shows. By contrast, in the case of the resultative construction, an unergative verb cannot be reduplicated, as can be seen in (9b).

- (9) a. She cried and cried her heart out until her eyes turned red.

(L. Boyd, *Once Upon a Time in the Bricks*)

- b. *The audience laughed and laughed the actor off the stage.⁸

It follows from this that the body-part *off* construction is atelic.

Second, I will provide evidence using ‘the *completely* test,’ as termed by Kennedy and McNally (1999). This test examines whether or not there are end-points in gradable adjectives by the compatibility with the adverb *completely*. For example, the adverb *completely* can modify adjectives in (10a), but not adjectives in (10b).

- (10) a. completely full/empty/straight/dry (closed scale)

- b. ??completely long/wide/short/cool (open scale) (Wechsler (2005: 262))

(10) suggests that adjectives in (10a) have maximal endpoints, in contrast with those in (10b). Along these lines, the *completely* test can be applied to examine whether or not ‘events’ expressed by sentences have endpoints. Let us now consider (11), where it is shown that the body-part *off* construction cannot be modified by *completely*.

(11) *He laughed his butt off *completely*. (Espinal and Mateu (2010: 1403))

(11) indicates that events denoted by the expression under consideration cannot have endpoints: *completely* requires the rest of sentence to express a telic situation. This means that the body-part *off* construction receives an activity interpretation since this describes non-delimited events. In contrast, in the case of the resultative construction, the modification by *completely* is possible, as seen in (12).

(12) The audience laughed the actor off the stage *completely*.⁹

This suggests that events expressed by the resultative construction can have maximal endpoints and hence are delimited.

Finally, the atelicity of the body-part *off* construction is based on the fact the body-part NP is not affected. To see this, consider (13).

(13) a. *His head was laughed off. (Sawada (2000: 367))

b. The actor was laughed off the stage by them.¹⁰

The body-part *off* construction cannot be passivized as in (13a), while the resultative construction can, as in (13b). This contrast indicates that the body-part *off* and resultative

constructions differ radically in the semantics of their direct objects. This can be accounted for in terms of a semantic notion of affectedness since a passive requires a base verb taking object that is an affected argument (cf. Anderson (1971, 1977), Tenny (1994)). Viewed from an aspectual perspective, (13b) can receive an accomplishment interpretation, but (13a) cannot. Here again, the body-part *off* construction is taken to be atelic in terms of affectedness.

So far, I have argued that the body-part *off* construction receives an atelic interpretation, while the resultative construction receives a telic interpretation. From the aspectual perspective, I have provided arguments against Levin and Rappaport's claim that the body-part *off* construction is an instance of the resultative construction.

7.2.2. Idiomaticity and the Body-Part *off* Construction

As has been repeatedly discussed above, the body-part *off* construction can receive an intensifier interpretation, since the postverbal sequence *one's body-part(s) off* can be idiomatically construed as exaggerating the amount of an activity denoted by the verb. By contrast, the resultative construction can literally receive a resulting interpretation, but not idiomatically as in the case of the body-part *off* construction. However, notice here that there are examples which can be idiomatically construed even if they belong to the class of resultative constructions, as can be seen in (14).

- (14) a. 'So, you're going to go out and buy a sports car and *paint the town red* for a few years?'
(P. Davies, *Gelignite Jack*)
- b. Board the Chiva Arubanita Party Bus . . . and *paint the town red* for six hours.
(Glasbey (2007: 72))

The configuration *paint the town red* in (14) receives an idiomatic interpretation. According to the *Oxford Dictionary of English* (2nd ed., 2004), *paint the town red* in an informal context means to “go out and enjoy oneself flamboyantly.” This shows that idiomatic expressions built on the resultative construction exist, which resemble the idiomaticity of the body-part *off* construction. With this resemblance in mind, one might try to propose that the body-part *off* construction can be treated as an instance of an idiomatic expression built out of the resultative construction. I will, however, propose that the body-part *off* construction cannot be an instance of the resultative construction, by comparing the idiomaticity of *paint the town red* and that of the body-part *off* construction.

Nunberg et al. (1994) divide idioms into two classes from the perspective of compositionality (i.e. decomposable vs. non-decomposable) as in (15):

- (15) We propose to distinguish **IDIOMATICALLY COMBINING EXPRESSIONS (ICEs)**: (e.g. *take advantage, pull strings*) whose meanings—while conventional—are distributed among their parts, from **IDIOMATIC PHRASES (IPs)**: (e.g. *kick the bucket, saw logs*) which do not distribute their meanings to their components.

(Nunberg et al. (1994: 491))

They argue that although most idioms can generally be treated as non-compositional, there are some compositional idioms. I will, following (15), henceforth call the **IDIOMATICALLY COMBINING EXPRESSIONS “ICEs”** and the **IDIOMATIC PHRASES “IPs.”** In the light of this classification, let us now investigate the idiomaticity of the body-part *off* construction and the configuration *paint the town red*. First, to see the properties of IPs, consider (16).

(16) [#]The bucket was kicked by John. (Jackendoff (1997a: 166))

([#] henceforth signals that the example is impossible in an idiomatic reading)

The typical IP *kick the bucket*, as a whole, has an idiomatic reading which does not distribute meanings to its components. Thus, the whole VP of *kick the bucket* is syntactically frozen, and hence cannot be passivized.¹¹ Similarly, the body-part *off* construction and the configuration *paint the town red* cannot be passivized, as shown in (17).

(17) a. *His heart was eaten out (by Bill). (Jackendoff (1997b: 548))

b. [#] The town is painted red.

(17) suggests that the body-part *off* construction and the configuration *paint the town red* have the properties of IPs. This is confirmed by further tests: left dislocation, topicalization and *wh*-question formation, as can be seen in (18)–(20).¹²

(18) a. *His heart, Bill ate it out. (Espinal and Mateu (2010: 1402))

b. *The town, you are going to paint it red. [left dislocation]

(19) a. *HIS HEART, Bill ate out. (Espinal and Mateu (2010: 1402))

b. *THE TOWN, you are going to paint red. [topicalization]

(20) a. *Whose/Which heart did Bill eat out? (Espinal and Mateu (2010: 1402))

b. *Which town are you going to paint red? [*wh*-question formation]

The data above show that their direct objects cannot undergo movement by transformation rules such as left dislocation, topicalization and *wh*-question formation. This means that

these two have the properties of IPs, since they are syntactically frozen. We have so far seen that the body-part *off* construction can be treated as an IP, just like the configuration *paint the town red*.

However, what is interesting is that the body-part *off* construction can have not only IP's property, but also ICE's property (Espinal and Mateu (2010)).¹³ The reason for this is that the components of the body-part *off* construction (i.e. the verb, the Body-Part NP, and the particle *off*) can be compositionally interpreted, as can be seen (21).

- (21) a. {laugh, blow, sing, talk, drink, cook, knit, swim, program, read, work, etc.}
one's head off.
- b. *John disappeared his head off. / *John frightened his guts out.

(Mateu and Espinal (2007: 38))

The body-part *off* construction can be represented as 'V *one's body-part(s) off*,' where V means that verbs in this position act as variables.¹⁴ That is, the verbs are lexically free, within a syntactic restriction, as shown in (21). The verbs must be unergative verbs or fake unergative verbs as in (21a),¹⁵ but not unaccusative verbs or obligatory transitive verbs like *frighten* as in (21b).¹⁶ By contrast, the verb *paint* in *paint the town red* functions as a constant because the verb is lexically fixed. From this, it is assumed that the configuration V *one's body-part(s) off* has properties of both IPs and ICEs, while the combination *paint the town red* is purely an IP.

Levin and Rappaport Hovav (1995) analyzed the body-part *off* construction as an instance of the fake resultative construction,¹⁷ which might suggest a similarity between the resultative and the body-part *off* constructions. The italicized parts in the fake resultative construction in (22) receive an idiomatic intensifier interpretation, which is similar to the

sequence *one's body-part(s) off*.

- (22) a. The joggers ran *the pavement thin* {in/*for} an hour. [nonsubcategorized NP]
b. The joggers laughed *themselves into a frenzy* {in/*for} about two minutes.

[fake reflexive]

(Mihara (2004: 178))

As mentioned above, however, as the body-part *off* construction can be construed as having an atelic interpretation. This is in contrast to the fake resultative construction that can be construed as a telic interpretation, as can be revealed by the *for-in* aspectual test above in (22). Thus again, the body-part *off* and the fake resultative constructions are distinct.

I have thus shown that the body-part *off* construction and the fake resultative construction are radically different with respect to idiomaticity. This is another argument against the claim of Levin and Rappaport Hovav (1995) that the body-part *off* construction can be an instance of the resultative construction.

7.2.3. Properties of the Body-Part *off* Construction

I have demonstrated, in the preceding two sections, that the body-part *off* construction is an independent construction and distinct from the resultative construction, with respect to aspect and idiomaticity. From this, the body-part *off* construction has a property of its own, which other construction do not, as in (23).

- (23) The body-part *off* construction is atelic from the perspective of aspect, and has properties of both IPs and ICEs with respect to idiomaticity.

7.3. An Alternative Analysis

Having showed some properties of the body-part *off* construction, as summarized in (23) above, I now turn to propose an alternative analysis of the body-part *off* construction, contrary to the Levin and Rappaport's analysis that the body-part *off* construction is an instance of the resultative construction.

7.3.1. The Status of the Body-Part NP

In order to show that the body-part *off* construction differs from the resultative construction, I will compare the object of the two constructions. I will particularly concentrate on the fake resultative construction, because it is more closely parallel to the body-part *off* construction in that they both take unlicensed objects. Consider now the fake resultative construction:

- (24) a. The critics laughed the show out of town. (= (5a))
b. All the joggers have run the pavement thin. (cf. Carrier and Randall (1992: 217))

Although the two constructions in (24) describe accomplishments, (24a) has an intensifier reading, whereas (25b) has a result reading.¹⁸ Despite this difference, these two can undergo passive, given the proper contextualization as in (25).

- (25) a. The show was laughed out of town by the critics.
b. The pavement has been run thin by all the joggers. (Kishimoto (2005: 104))

On the other hand, as mentioned in section 7.2.1, such passives are impossible with the object

of the body-part *off* construction:

(26) *His head was laughed off. (= (13a))

The applicability of passivization reveals that the fake resultative construction can be analyzed as describing complex events (i.e., composed of a causing subevent and a result subevent), built on verbs which can affect their objects.¹⁹ On the other hand, the body-part *off* construction can be taken as describing a simple event, since the verbs cannot affect their objects.

Moreover, this is confirmed from the perspective of aspect.²⁰ Let us consider (27).

(27) a. The frog sang his heart out {for the whole night/*in a night}. (= (3b))

b. I laughed myself sick {*for/in} three hours. (Tenny (1994: 43))

The contrast in (27) shows that the body-part *off* construction describes non-delimited events as in (27a), whereas the fake resultative construction in (27b) describes delimited events, as revealed by the aspectual test.

So far in this section, I have shown that the body-part NP cannot be licensed or affected by verbs, whereas the object of the fake resultative construction can be affected by verbs, regardless of whether or not they are licensed by verbs (cf. (25a) vs. (25b)).

7.3.2. Status of the Particle *off*

In this section, I will investigate the particle *off* in the body-part *off* construction. To see the nature of the particle *off*, consider (28).

(28) a. Susan scraped her fingernails off.

b. John cut his fingers off.

(Sawada (2000: 370))

Sawada (2000) points out that the particle *off* in the configurational pattern here implicitly suggests a larger body-part from which the body-part in the object position is taken. Notice here that this also can be seen in (29), where *out of* is used.

(29) . . . she lifted up her voice, and almost wept her heart out of her body.

(C. Reade and D. Boucicault, *Foul Play*)

In the case of (29), *out of* can be replaced by *off* and implicitly suggests a larger body part (*her body*) from which the body part in the object position (*her heart*) is removed. In fact, Sawada (2000) claims that the configurational pattern of (28) is parallel to that of the body-part *off* construction.

However, I will argue that examples in (28) are fundamentally different from the body-part *off* construction with respect to their readings. To see this, consider (30).

(30) a. George scraped the putty off the molding.

(Sawada (2000: 370))

b. The child rubbed the tiredness out of his eyes.

(Rappaport Hovav and Levin (1998: 103))

(30) is different from the body-part *off* construction, in that it is possible to be read literally, whereas the body-part *off* construction does not allow literal interpretation. Since the configuration *V one's body-part(s) off*, unlike (30), allows only idiomatic readings, we can say that the examples in (28) are parallel to those in (30) rather than to the body-part *off*

construction. That is, the literal reading of the examples in (28) stems from the semantic notion “removal” already inherent in the verb’s meaning, as the verb *weep* in (29) shows. Notice here that not all the expressions involving body parts are cases of the body-part *off* construction.

To see that the verb already inherently entails the semantic notion “removal,” let us consider (31).²¹

- (31) a. Susan scraped her fingernails (off).
b. Pat sang/drank/sewed his heart *(out).

In the case of (31a), the particle *off* can be omitted since the verb entails the semantic notion of removal. By contrast, in the case of the body-part *off* construction in (31b), the particle *out* cannot be omitted since the verb does not entail the meaning of removal. In this connection, one might propose that the body-part *off* construction can be made on the basis of host verbs of removing such as *scrape* (cf. Mateu and Espinal (2007), Espinal and Mateu (2010)).²² But this cannot explain the optionality of the particle *off/out*, as seen in (31).

So far, I have proposed, in investigating the status of the particle *off*, that the body-part *off* construction cannot be taken to be based on the verbs of removing.

7.3.3. Function of the Particle *off*

I will argue that the particle *off* itself as a component of the body-part *off* construction has the meaning of “removal,” and that such meaning is not represented by the construction as a whole. In this respect, the body-part *off* construction and “verbs of removing plus the particle *off*” like (31a) have a common feature in that they are construed as having the meaning of removal. However, they differ with respect to the function of the particle *off*.

To see this, consider (31), repeated here as (32).

- (32) a. Susan scraped her fingernails (off).
b. Pat sang/drank/sewed his heart *(out).

In the case of the body-part *off* construction, the particle *off* (in the case of (32b), *out*; see also note 2) in (32b) acts as a secondary predicate of the body-part NP and hence must be overtly realized to license the body-part NP. The reason here is that the host verb cannot license the body-part NP. On the other hand, in the case of verbs of removing, the particle *off* in (32a) represents only a part of the meaning of removal already inherent in verb's lexical conceptual structure. The meaning of removal entailed by the verbs includes "*off* SOURCE" and hence allows the omission of the particle *off*.

Given that the body-part *off* construction is independent from other constructions, as discussed above, it is reasonable to state that the constructional meaning of the body-part *off* construction (i.e. the intensifier reading) stems from the verb's fusion. To see this, let us consider (33).

- (33) a. John ate his heart out.
b. *John devoured his heart out.

In the case of the expressions including the body-part in (33a), ambiguity arises between the intensifier reading (John ate very much) and the literal reading (John is down to the extent he ate his heart). The former case indicates the verb is fused with the body-part *off* construction, whereas the latter does not. On the other hand, in the case of the verb *devour*, in contrast to *eat*, the ungrammaticality of (33b) indicates that the verb *devour* cannot be fused with the

body-part *off* construction. The reason for this is that the verb *eat* can allow “unspecified objects” and hence has an slot in its object position, whereas the verb *devour* cannot allow unspecified objects and hence does not have an empty slot in its object position (see Brisson (1994), Sugayama (1994), and Nishiwaki (2010) for unspecified objects). The body-part NP in (33a) can be overtly realized because of the available slot in the object position for argument realization, whereas the body-part NP in (33b) cannot, because there is no available slot for argument realization.

7.4. Conclusion

In this chapter, I have shown that the body-part *off* construction radically differs from the resultative construction. Hence, I do not adopt the position claimed by Levin and Rappaport Hovav (1995) that it can be reduced to the resultative construction. In section 7.2, I have proposed that there are crucial differences between the body-part *off* construction and the resultative construction with respect to aspect and idiomaticity. In section 7.3, I have investigated the Body-Part NPs and the particle *off* in the body-part *off* construction respectively, to see how the above properties of the body-part *off* construction emerge. Based on the nature of the particle *off*, I have shown that the body-part *off* construction does not stem from the verbs of removing.

This chapter has shown that the body-part *off* construction has syntactic and semantic peculiarities of its own, so it is radically independent of other constructions like the resultative construction.

Notes

- * This chapter is a revised and extended version of Morito (2011a), a paper that appeared in *Eigo Goho Bumpo Kenkyu* 18, 158–172.
1. Here, *one's* represents an intrinsic connection (i.e. inalienable possession) between the subject (i.e. the whole body) and body-part. Notice here that there is a coreferential constraint between them, as shown in (i).
 - (i) John laughed {his/*her} head off.
 2. The term ‘the body-part *off* construction’ is used not only when the particle *off* is used in (1b) but also when the particle *out* is used in (1a).
 3. Culicover and Jackendoff (2005: 32–33) put this as follows: “Rather, X’s *heart out*, X’s *head off*, . . . , all of which mean approximately ‘intensely and/or excessively’—that is, semantically they function like adverbials.”
 4. *Roflmao* is an internet slang and an abbreviation for “Rolling On the Floor Laughing My Ass Off!”
 5. Levin and Rappaport Hovav (1995: 36) treated (i), termed the body-part *off* construction in this study, as an instance of the resultative construction, as quoted in (ii).
 - (i) Sylvester cried his eyes out.
 - (ii) Related to these two types of resultative constructions based on unergative verbs is a third type in which the NP following the unergative verb is a nonsubcategorized inalienably possessed NP (generally denoting a body part), where the possessor is coreferential with the subject of the verb.
 6. Jackendoff (2010: 273) proposed a more general construction which he termed “the verb subordination archi-construction,” which shares common properties with other

constructions, such as the resultative construction and the *way* construction, among others (see section 4.5 for details).

7. Google searches on the Internet did not find actual usages of *in*-phrases collocating with *off*.
8. I composed (9b) based on (9a), and had the grammaticality checked by a native speaker of English.
9. I composed (12) based on (11), and had the grammaticality checked by a native speaker of English.
10. I composed (13b) based on (13a), and had the grammaticality checked by a native speaker of English.
11. This property of IP is based on “inflexibility” (cf. Nunberg et al. (1994)), as is explained in (i).
 - (i) Idioms typically appear only in a limited number of syntactic frames or constructions, unlike freely composed expressions (e.g. *the breeze was shot, *the breeze is hard to shoot, etc.). (Nunberg et al. (1994: 492))
12. I composed (18b), (19b), and (20b) based on (18a), (19a), and (20a) respectively, and had their grammaticality checked by a native speaker of English.
13. Espinal and Mateu (2010) argue that all idiomatic expressions can be located at a certain point on a continuum, with ICE at one extreme and IP at the other, and that these two types should not be viewed as being distinctively divided, but as a matter of degree.
14. One might point out that *take advantage* and *pull strings* in (15) seem to be constants, although these expressions are cited as ICEs, It is true that these verbs are constants, but, as shown in (i), part of these idioms can be modified and thus the idioms can be

compositionally interpreted as a whole.

- (i) Pat got the job by pulling strings that weren't available to anyone else.

(Nunberg et al. (1994: 500))

Nunberg et al. (1994) assume that when a part of an idiom is a variable or can be modified, the idiom can be an ICE; therefore, *take advantage* and *pull strings* are ICEs. Notice here that in the case of the body-part *off* construction, each component (i.e. V, *one's body part(s)*, and *off*) is a variable.

15. Unergative verbs like *eat* and *drink* allow a missing object.
16. Obligatory transitive verbs obligatorily take the direct object.
17. There are two kinds of fake objects: nonsubcategorized NPs like *the pavement* in (22a) and fake reflexives like *themselves* in (22b).
18. The differences in meanings stem from possibility in real worlds. The change of state in *the show was out of town* in (25a) is more possible than *the pavement was thin* in (25b).
19. There is no semantic relation between the subject and the fake object with respect to “thematic tier.” This causation can be produced by the affective relation between the subject and the fake object in “action tier.” See Jackendoff (1990) for action tier.
20. One might wonder why I take up the difference in delimitedness in (27) in the case of the fake reflexive. Above all, the fake resultative construction with fake reflexives cannot be passivized. In this respect, there is a binding constraint between the subject and the fake reflexive. Thus, passivization cannot be used for examining whether affectedness is involved or not. I have discussed affectedness, since there must be an affectedness relation between the subject and the object to describe accomplishments.
21. I made (31) myself and checked its grammaticality with a native speaker of English.

22. Mateu and Espinal (2007) and Espinal and Mateu (2010) pointed out that in the verb-framed languages (e.g. Spanish, Italian, Greek, etc.), the components of *one's body-part(s) off* in the configuration V *one's body-part(s) off* is incorporated in V, as shown in (i).

(i) A la gerenta_i li_i sortie els ulls_i de la cara.

to the manager CL went+out the eyes of the face

'The manager cried her eyes out.'

(Mateu and Espinal (2007: 42))

Chapter 8

The Parallelism between the Parenthetical Clause *I regret to say* as a Style Disjunct and the Sentential Adverbial *regrettably speaking*

8.1. Introduction

There are parenthetical expressions in English, which occupy a syntactically peripheral position in a sentence, and which function as a gloss or comment on some aspect of the meaning of that sentence. Among such expressions, parenthetical clauses, the italicized parts in (1) for example, convey the speaker's comment on the style and form of what he is saying.

- (1) a. I don't understand, *I'm afraid*.
b. Her lack of co-operation is nothing new, *I regret to say*.

(*Collins COBUILD Advanced Learner's English Dictionary*)

These parenthetical clauses function as style disjuncts in the sense of Greenbaum (1969) (i.e. one of his familiar classes (conjuncts, disjuncts, and adjuncts); cf. Greenbaum (1969), Quirk et al. (1985)). There is a parallelism between these parenthetical clauses in (1) and sentential adverbs, exemplified in (2).

- (2) a. *Briefly*, there is nothing more I can do about it.
 b. I don't want the money, *confidentially*. (Quirk et al. (1985: 616))

Quirk et al. (1985: 616) point out that some sentential adverbs of the type in (2) are realized by longer phrases, thus making more explicit the respect in which a comment is being 'hedged,' as can be seen in (3).

- (3) a. *Generally speaking*, the rainy season has already begun by September.
 b. *Strictly speaking* she was out of order. (Quirk et al. (1985: 616))

In what follows, I will henceforth call these sentential adverbials *-ly speaking*.

The important point here is that there is a parallelism between the parenthetical clause *I regret to say* in (1b) and the sentential adverbial phrase *regrettably speaking* in (4) below:

- (4) There is widespread occult activity in many parts of the world today, and *regrettably speaking*, many Christians seem to be unconcerned, and ever unbelieving that Satanism and Demonology could possibly represent spiritual realities.

(J. R. Ponds, *Can Christians Be Demon Processed?*)

What is interesting concerning (1b) and (4) is that the verb *regret* and the adverb *regrettably* can be used as style disjuncts when combined with *to say* as in (1b) and with *speaking* as in (4) respectively. It is worth noting here that *to say* and *speaking* must be overtly realized for *regret* and *regrettably* to serve as style disjuncts.

This chapter will show that there is a parallelism between *to say* in the parenthetical clause *I regret to say* as a style disjunct and *speaking* in the sentential adverbial *regrettably*

speaking, in that they express a speaker's speech act and have a number of parallel functions: namely, with respect to the obligatory overt appearance of *to say* and *speaking*, their idiomaticity, and their role of solving the mismatch between form and meaning.

8.2. The Property of Parenthetical Clauses as a Style Disjunct

The predicate such as *be afraid* in (1a), repeated here as (5a), can be used as a parenthetical clause since *be afraid* is an assertive predicate. The predicate *regret* in (5b), on the other hand, cannot be used as a parenthetical clause, since *regret* is a nonassertive predicate (cf. Hooper (1975)).

(5) a. I don't understand, I'm afraid.

b. *John is foolish, I regret.

(Okada (1985: 169))

However, as mentioned in the previous section, if assertive predicates such as *to say*, *to inform you*, or *to tell you* are combined with *regret*, then the phrase of *I regret to say* as a whole can act as an assertive predicate, and hence can serve as a parenthetical predicate, as in (1b), repeated here as (6).

(6) Her lack of co-operation is nothing new, *I regret to say*.

(Collins COBUILD Advanced Learner's English Dictionary)

Notice here that, *I'm afraid* in (5) itself is an assertive predicate and thus, does not require the overtly expressed *to say*, whereas the predicate *regret* in (6) requires *to say* to be overtly expressed in order to be used as a parenthetical clause.

8.3. The Property of *-ly speaking*

In this section, I will show that *speaking* in *-ly speaking* is not a predicate which expresses verbal action in the communication, but a speaker's comment on the style and form of what he is saying. To see this, consider (7).

(7) *Evidently*, Peter is faithful to his wife. (Rouchota (1998: 97))

Evidently in (7) falls into a subclass of style disjunct (i.e. attitudinal disjunct which acts to specify a speaker's attitude towards what he is saying) in terms of Greenbaum's classification of adverbials. Viewed from the perspective of speech act theory, the italicized part in (7) is meaningful, but its meaning does not contribute to the truth conditions of the sentence in which it occurs. That is, it does not "describe" the proposition, but "indicates" the speaker's attitude towards the proposition expressed (cf. Austin (1962), Ifantidou-Trouki (1993)). If a sentence like (7) as a whole is assumed to be an utterance, then the italicized part is a modality and the underlined part is a proposition.

Like *evidently*, which has the speaker's comment or gloss function, the sentential adverb *honestly* in (8) does not describe the proposition, but indicates the type of speech act performed by the speaker.

(8) *Honestly*, don't tell him about it. (Greenbaum (1969: 85))

It follows hence that style disjuncts indicate the type of speech act performed by the speaker and thus compose modality.

Now, bearing the discussion above in mind, let us proceed to consider *speaking* in *-ly*

speaking. The adverb *honestly* in (8) modifies *speaking*, although *speaking* is not overtly expressed, since *honestly* can be realized by the longer phrase *honestly speaking*, as mentioned in section 8.1. In the same vein, the adverb *honestly* in (9) modifies *say* which is synonymous to *speak*.

- (9) I can *honestly* say that my memory has been transformed. So by Freud's definition,
I have achieved mental health. (*Girl Interrupted*, movie)

At first blush, it seems that the adverb *honestly* in (9) can be analyzed as a style disjunct, just like the adverb *honestly* in (8). However, *honestly* in (9) is a manner adverb which modifies *say*, which is a verb of saying (e.g. *say*, *speak*, *tell*, etc.), and hence is not the speaker's comment. To put it in another way, the adverb *honestly* in (9) describes the proposition, but does not indicate the speaker's comment. The same can be said of (10), where the adverb *honestly* modifies *think*.

- (10) Do you *honestly* think that after that performance this morning I'd let you go
anywhere? (*Ever After*, movie)

The adverb *honestly* in (10) modifies *think* which composes the proposition as a head verb. In contrast, the adverb *honestly* cannot modify the speaker's propositional attitude. This is supported by the ungrammaticality of **honestly thinking*.

I will show in the next section that the relation between *I regret* and *to say* in the parenthetical clause *I regret to say* can be discussed in parallel to the relation between *honestly* and *speaking* as shown above.

8.4. The Relationship between *I regret to say* and *regrettably speaking*

By investigating the relation between *I regret to say* and *regrettably speaking*, I will propose in this section that *to say* has the same function as *speaking*. I will provide below three pieces of evidence for this.

8.4.1. The Optionality of *to say* and *speaking*

Let us first consider (1a), repeated here as (11).

(11) I don't understand, *I'm afraid*.

The example in (11) shows that *I'm afraid* can be used as a parenthetical clause even when it is not combined with *to say*.

I will propose here that the optionality of *to say* in (11) is parallel to the optionality of *speaking* in *frankly speaking*. According to Konishi (1980), *speaking* in *frankly speaking* can be omissible in informal contexts, thus making the speaker convey more simply and vividly his comment on the style and form of what he is saying.

Similarly, in the case of the predicate *be afraid*, the predicate *be afraid* can be used as a parenthetical verb even when combined with *to say*, since it is itself a true assertive predicate, as shown in (11). Notice here that, just like *frankly speaking*, the predicate *be afraid* can be realized as a longer phrase containing *to say*, as can be seen in (12).

(12) *I am afraid to say*, I am sure, how many ancestors the baron had; . . .

(C. Dickens, "The Baron of Grogzwig")

It follows from the discussion above that *to say* in *I'm afraid to say* is parallel to *speaking* in *frankly speaking*.

To show further evidence, let us take up the parenthetical use of the predicate *regret*, as exemplified in (1b), repeated here as (13).

(13) Her lack of co-operation is nothing new, *I regret to say*.

The important point here is that the overt realization of *to say* is obligatory in (13), whereas in the case of *be afraid* as in (12), the overt realization of *to say* is optional.

It is worth noting here that this kind of contrast can be also seen in the case of *-ly speaking*. According to the *Longman Dictionary of Contemporary English* (5th ed., 2009), it is difficult to omit *speaking* from *generally speaking* when *generally speaking* is idiomatically used as a style disjunct. In contrast, the omission of *speaking* from *frankly speaking* as a style disjunct is more freely possible, as discussed just above.

Similarly, Greenbaum (1969: 89–90) points out that “a writer who wishes to convey the style disjunct function may feel it necessary to invert the order and place the participle first,” as in (14).

(14) *Speaking generally*, these crimes will no longer be tolerated in this city . . .

(Greenbaum (1969: 90))

Greenbaum further points out that *generally speaking* may act as a temporal adjunct, as can be seen in (15).

- (15) *Generally speaking*, France announces Cabinet changes, and so forth in this speech . . . (Greenbaum (1969: 89))

In fact, we can find instances of *generally speaking* as a temporal adjunct, as in (16)

- (16) *Generally speaking*, the technique of striking the drumhead varies according to the type of instrument and mode of drumming.

(J. Blades, *Percussion Instruments and Their History*)

Greenbaum (1969) notes that the reason for this is that *generally* is more commonly a temporal adjunct expressing the notion of habitual action or state and hence very similar in meaning to *usually* or *normally*, as in (17).

- (17) He doesn't *generally* write well, but he does write well occasionally.

(Greenbaum (1969: 89))

In light of these facts, it is reasonable to state that *speaking* in *generally speaking* plays an important role when the speaker wants to convey a style disjunct function, in contrast with *speaking* in *frankly speaking* where *speaking* can be omitted.

The fact that *speaking* plays an important role in *generally speaking* as a style disjunct has a parallel with the obligatory overt realization of *to say* in *I regret to say*. That is, in parallel to the particular role played by *speaking* in *generally speaking*, the expression *I regret* can be coerced into indicating the type of speech act (i.e. modality) when combined with *to say*, although this expression usually contributes to the meaning of a sentence (i.e. proposition).

In particular, in the case of the expression *regrettably speaking* in question, *speaking* must be overtly realized when it is used as a style disjunct. This means that the overtly expressed *speaking* makes the meaning of *regrettably* as an evaluative disjunct coerce into receiving a style disjunct interpretation, even though *regrettably* is originally an evaluative disjunct (the *Shorter Oxford English Dictionary* (6th ed., 2007) defines *regrettably* as follows: “(modifying sentence) *it is regretted that*”).

To make the point clear, consider the *way*-construction as in (18).

(18) Elmer hobbled/laughed/joked his way to the bank.

(Culicover and Jackendoff (2005: 34))

This shows that unergative verbs which can occur in this construction do not encode motion independently of this construction. Yet, when these unergative verbs are used in the *way*-construction, a motion sense is implied. The important point here is that a lexically fixed word *way* is necessary in (18) and is thereby used as a marker for the *way*-construction. To put it differently, the special morpheme *way* can help the construction itself coerce the conceptual structure. That is, the *way*-construction can be coerced by overtly expressed *way*.

I will propose here that the same can be said of *speaking* in *regrettably speaking*. Within this view, it is reasonable to state that, in the case of *regrettably speaking*, *speaking* acts as a marker for the construction and helps to cause the coercions by the construction *regrettably speaking*, just like the function of *way* in the *way*-construction.

By contrast, in the case of *frankly speaking*, *frankly* in isolation is a style disjunct. Thus, the meaning denoted by *speaking* is already inherent in the meaning of *frankly*, given that *frankly* is originally a manner adverb which modifies verbs of communication (see Levin (1993) for verbs of communication).

To see this, let us consider (19).

(19) a. *John lied to Bill *frankly*.

b. *Frankly*, John lied to Bill.

(Nakau (1980: 208))

Frankly in (19a) acts as a manner adverb which modifies the *say*-verb *lie* when it occurs in final position. This results in unacceptability since the verb *lie* is semantically incompatible with *frankly*. On the other hand, as shown in (19b), when *frankly* occurs in initial position, this results in acceptability. This suggests, provided that adverbs can be licensed and interpreted by what they modify, that *frankly* in (19b) modifies a non-overt speech act verb “SAY” that can be found as “I SAY” in modality and outside the proposition, but not the verb *lie* inside proposition. In the light of this consideration, it is reasonable to conclude that *speaking* need not be overtly expressed, as in (19b), since *speaking* can be lexically implied by the adverb *frankly*.

Viewed from the perspective of function of *speaking*, we can provide a new classification of style disjuncts, as follows:

(20) a. frankly, candidly, honestly, truthfully, bluntly, flatly, . . . (Greenbaum (1969: 93))

b. broadly, crudely, generally, roughly, approximately, . . . (Greenbaum (1969: 93))

c. regrettably, . . .

The first class of adverbs in (20a) expresses the speaker’s attitude toward what he is saying, and *speaking* need not be obligatory realized. (20b) is a class which expresses the speaker’s generalization of what he is saying. In this second case, *speaking* is obligatorily realized, and occurs in a marked position to specify the marked reading as a style disjunct. Verbs in

the third and the last class (20c), originally cannot function as style disjuncts. For (20c) to function as a style disjunct, *speaking* is obligatory realized, since it is necessary to coerce the evaluate disjunct reading into the style disjunct reading.

8.4.2. *to say* and *speaking* as Speech Acts

The second argument deals with the fact that there is a contrast in grammaticality between *-ly speaking* and **-ly thinking*. The same can be said of *I regret to say*. That is, *I regret to say* is used as a style disjunct, whereas *I regret to think* is not. This parallelism indicates, as has been discussed in the previous sections, that *to say* and *speaking* ‘indicates’ the speaker’s attitude towards the proposition expressed. In other words, these two convey the speaker’s comment on the style and form of what he is saying.

Within the hierarchical semantics proposed by Lyons (1977) and Nakau (1994), among others, modality can be divided into two components: one component expressing the speaker’s comment on the style and form of proposition, the other expressing the speaker’s propositional attitude. I will call the former “I SAY,” and the latter “I THINK.” To see this, consider (21).

- (21) a. {*Roughly/Briefly*}, Ernestine has *possibly* been holding out for too much money.
b. **Possibly* Ernestine has {*roughly/briefly*}, been holding out for too much money.

(Ernst (2002: 98))

The contrast of grammaticality in (21) suggests that style disjuncts like *roughly* and *briefly* must precede other speaker-oriented adverbs like *possibly*. This predicts straightforwardly that “I SAY” and “I THINK” are radically distinct and “I SAY” precedes “I THINK” (cf. Cinque (1999), Ernst (2002)).

Based on this relative order, I will show, following Nakau (1994), that the hierarchical semantic structure of (22a) is that in (22b).

- (22) a. [AdvP *Frankly*, [IP I think [that you're making a big mistake]]].
b. [MODALITY-1 I SAY [MODALITY-2 I THINK [PROPOSITION]]]

(cf. Nakau (1994: 67))

The style disjunct *frankly* represents part of “I SAY” since it modifies the speaker’s speech act. That is, as mentioned in the preceding section, *frankly* modifies SAY outside PROPOSITION. This means that *frankly* modifies SAY in “I SAY” which corresponds to *speaking* in the overt form *frankly speaking*. From this consideration, we can say that the form *speaking* is not necessarily overtly expressed because SAY is already inherent in the meaning of *frankly*.¹

With this in mind, let us now consider the case of *I regret to say*. Here again, like *speaking*, *to say* is an overtly realized form which corresponds to SAY in “I SAY.” On the other hand, the form *I think* represents “I THINK,” which refers to the propositional attitude. This is confirmed by the ungrammaticality of **-ly thinking*. The ungrammaticality shows that *frankly* is a different expression from that in the scope of “I THINK.” What is interesting here is *I regret to think* is a possible phrase, in contrast with **-ly thinking*, as can be seen in (23).

- (23) The main conclusion arrived at in this work, namely, that man is descended from some lowly organized form, will, *I regret to think*, be highly distasteful to many.

(C. Darwin, *The Descent of Man*)

Notice here that the form *I regret to think* acts as an evaluative disjunct, but not as a style

disjunct. In order to express the scope of “I THINK,” the form *I regret to think* must be used.

From these considerations, I conclude that *to say* and *speaking* represent “I SAY” and SAY in “I SAY” can be overtly realized by the form *to say/speaking*, according to whether or not lexical item inherently implies SAY (e.g. *frankly (speaking)* vs. *I regret *(to say)*).

8.4.3. *to say* and *speaking* as Markers of Constructional Idiom

In this section, from the perspective of idiomaticity,² I will provide the third type of evidence that there is a parallelism between *I regret to say* and *regrettably speaking*. In the case of *I regret to say*, the meaning of *regret*, defined by *The Oxford English Dictionary* (2nd ed., 1989) as “to feel sorry about something you have done or about something that you have not been able to,” originally contributes to the propositional meaning. However, as mentioned in the previous section, *regret* contributes to the meaning of modality, when combined with *to think* or *to say*. That is, when *to think* combines with *I regret*, the meaning of *regret* is coerced into the interpretation of “I THINK”; and when *say* combines with *I regret*, the meaning of *regret* is coerced into the interpretation of “I SAY.”

From these considerations, I propose that the forms *to say* and *to think* act as markers of the construction *I regret to say* and *I regret to think* respectively.³ Notice here that *I regret to say* and *I regret to think* can be analyzed as “constructional idioms” in the sense of Jackendoff (1990),⁴ since these expressions can be established through the process of idiomatization/grammaticalization at the phrasal level.⁵

The same grammaticalization holds in the case of *regrettably speaking*. The adverb *regrettably*, as already mentioned, originally functions as an evaluative disjunct, which is a true assertive predicate in the scope of “I SAY.” Just like *I regret to say*, the meaning of *regrettably* is coerced into the interpretation which can be used in “I SAY,” when combined

with *speaking*. This is confirmed by the fact that *regrettably speaking* has the same meaning as *I am sorry to say*. This shows that *regrettably speaking* is similar to *I am sorry to say*, in that the nonassertive predicate *be sorry* is coerced into the interpretation used in ‘I SAY,’ which makes the case parallel to that of *regrettably speaking*.

Moreover, notice the contrast between the frequency of *I am sorry to say* and *regrettably speaking*. Actual usages of *I am sorry to say* can be seen quite frequently. One example is given in (24).

- (24) ‘And that’s where . . .’ Mr Ollivander touched the lightning scar on Harry’s forehead with a long, white finger. ‘*I’m sorry to say* I sold the wand that did it,’ he said softly.
(J. K. Rowling, *Harry Potter and the Philosopher’s Stone*)

On the other hand, actual usages of *regrettably speaking* are not found so easily, even though that in (4) could be found. The reason for this is that the combination pattern *regrettably speaking* can be made as a unit through the coercion forced by the construction ‘*-ly speaking*,’ and hence is difficult to establish in actual use. In regard to this discussion, Schreiber (1972) proposes, from the viewpoint of generative semantics, that style disjuncts represent another instance of a surface adverb-type which should be transformationally derived from a different underlying category, and the basic sequence is as follows:

- (25) Adjective → Manner Adverb → Style Disjunct (Schreiber (1972: 345))

(25) can be restated as “from Proposition to Modality.” As seen in the preceding sections, *frankly* is originally a manner adverb that modifies verbs of communication inside the proposition. By adding *speaking*, *frankly* can be coerced into the meaning of style disjuncts,

which encodes concepts within the scope of “I SAY.”

Now, the question arises of why *speaking* can be used as a marker of the constructions, whereas other synonymous words like *saying* or *telling* cannot.⁶ In a similar vein, Jackendoff (2010: 272) points out property of the *way*-construction as a constructional idiom:

(26) . . . sometimes there are special morphemes such as *way* that mark the construction.⁷

If (26) is correct, then, *speaking* functions as a marker for establishing the constructional idiom. The reason for this is that *speaking* can coerce the meaning of *regrettably* in proposition into the meaning of “I SAY,” which is parallel in function to *way* in the *way*-construction which coerces the meaning into a motion sense not inherently denoted by the verb.⁸

8.5. *to say* and *speaking* for Solving the Mismatch between Form and Meaning:

From the Perspective of Construction Grammar

I have shown, in the previous sections, that there is a parallelism between *to say* and *speaking* with respect to “optionality” in section 8.4.1, “speech act” in section 8.4.2, and “idiomaticity” in section 8.4.3.⁹

In this section, I will investigate why these parallelisms occur, from the perspective of Construction Grammar. Within Construction Grammar, it has generally been assumed that a construction is a pairing of a complex form and meaning and thus, links together idiosyncratic or arbitrary phonological, syntactic, and semantic information (cf. Lakoff (1987), Fillmore, et al. (1988), Goldberg (1995), Croft (2001, 2005), among others; see also Chapter 1). On this view, I have so far shown that *I regret to say* and *-ly speaking* are both constructions in the

sense of Construction Grammar.

I will propose, along these lines, that *I regret to say* and *–ly speaking* as constructions can be enacted for solving the mismatch between the form and its meaning. To see this, we will consider the syntactic base position that style disjuncts have. There has been some consensus among researchers (e.g. Cinque (1999), Ernst (2002), among others), on the relative order of adverb phrases, as shown in (27), represented in Greenbaum’s terminology for adverb phrases.¹⁰

(27) Style disjunct > Evaluative disjunct > Attitudinal disjunct > . . . > Adjunct . . .

This shows that style disjuncts are located at the most initial base position on the relative order of adverb phrases. It is generally assumed that the unmarked case in the syntax–semantics interface is where there is a mapping between a structured lexical semantic structure and an identically structured underlying syntactic structure (cf. Baker (1997: 123–126)). There is no problem, then, if (27) can be related to a structured semantic structure like (28b), (28) being a replication of (22) in section 8.4.2.

(28) a. [_{AdvP} *Frankly*, [_{IP} I think [that you’re making a big mistake]]].

b. [_{MODALITY-1} I SAY [_{MODALITY-2} I THINK [PROPOSITION]]]

(cf. Nakau (1994: 67))

This indicates that the semantics-to-syntax mapping, or correspondence, is designed to ensure that the prominence relations encoded in the semantic representation are preserved in the syntax (i.e. Prominence Preservation Constraints; Levin and Rappaport Hovav (2005: 140–145); see also Culicover and Jackendoff (2005: 40–41)).

Now, bearing this in mind, let us proceed to consider the function of *to say* and *speaking* in their constructions respectively.

In the unmarked case, *to say* and *speaking* must be overtly realized to meet prominence preservation constraints, as already discussed in section 8.4.1. That is, the overtly expressed forms *to say* and *speaking* as markers help associate their corresponding meanings without any effort.

On the other hand, let us consider a marked case where prominence preservation constraints are violated. To see this, consider (29).

(29) He is, I regret, unwell. (Okada (1985: 193))

In (29), there is a mismatch between the form and its meaning. That is, the main clause and the subordinate clause are reversed within the syntactic and semantic structures. It is worth noticing that *to say* is not overtly realized here, even when there is a mismatch between the form and its meaning.¹¹ In light of this fact, it is reasonable to state that the marked “parenthetical form” (where the form is in a syntactic surface marked position) can be used to help resolving the mismatch.¹² This predicts that a marked syntactic form also can be used as a marker for constructions, and hence do not require the overtly expressed *to say* as a construction marker.

Moreover, notice that the same holds of the case where *I regret to say* is in initial position. Consider (30).

(30) I regret (to say) that the report is *certainly/evidently* true. (Okada (1985: 162))

In this case, *I regret* can be analyzed as a parenthetical form, since the attitudinal

certainly/evidently occurs in the complement clause. The attitudinal *certainly/evidently* here serves to coerce the unassertive predicate reading into the assertive reading. Being a parenthetical form, *I regret* acts as a marker of the construction, in place of the overtly expressed syntactic device *to say*. Thus, *to say* need not be overtly realized as a construction marker to resolve the mismatch between syntax and semantics.

Next, let us consider the case of *-ly speaking*. Contrary to the case of *I regret to say* as a “parenthetical form,” adverbs ending in *-ly* are not particular forms in syntax. Thus, there is no indication about the correspondence between adverbs ending in *-ly* and semantic structure. This means that each of these adverbs must be interpreted by a semantic rule that agrees with the position in which it occurs, to ensure that prominence is preserved within the semantics-to-syntax correspondence. This can be seen in the contrast between (31a) and (31b).

- (31) a. He didn't die *happily*. <adjunct reading>
b. *Happily*, he didn't die. <disjunct reading>

With this mind, let us now consider the case of a style disjunct, as in (8), repeated here as (32).

- (32) *Honestly*, don't tell him about it. (Greenbaum (1969: 85))

The adverb *honestly* in (32) can be used as a style disjunct without employing the construction *-ly speaking*, in the same way as other common adverbs ending in *-ly* as seen above. The style disjunct reading comes from the syntactic position of *honestly* which corresponds to the structured semantic structure in line with prominence preservation

constraints, and thus, there is no mismatch between syntax and semantics; therefore, *speaking* need not be overtly expressed. *Honestly* belongs to the first class of adverbs discussed in section 8.4.1 and listed as (20a).

By contrast, adverbs in the second class listed as (20b) in section 8.4.1, of which a typical example is *generally*, need to employ the construction *-ly speaking* to be interpreted as a style disjunct. This class may have a further marked form as in (14), and as repeated here as (33), to prevent confusion with the temporal adjunct reading.

(33) *Speaking generally*, these crimes will no longer be tolerated in this city . . .

(Greenbaum (1969: 89))

The reason why *speaking* must be overtly expressed is that the adverbs in this class are difficult to interpret as style disjuncts because of their intrinsic lexical meanings, even when they occur in initial position. Thus, the construction *-ly speaking* is used to solve the mismatch between syntax and semantics.

Similarly, the adverbs in the last class and listed as (20c), *regrettably* being a typical example, need to be fused with the construction *-ly speaking* to be used as style disjuncts, as in (4) in section 8.4.1, repeated here as (34).

(34) There is widespread occult activity in many parts of the world today, and *regrettably speaking*, many Christians seem to be unconcerned, and ever unbelieving that Satanism and Demonology could possibly represent spiritual realities.

(J. R. Ponds, *Can Christians Be Demon Processed?*)

This is because their lexical meanings are originally evaluative disjuncts, but not style

disjuncts. When an intrinsic evaluative disjunct is used as a style disjunct in the scope of “I SAY,” a mismatch between syntax and semantics occurs, thus the need for the overtly expressed syntactic device *speaking*. This was discussed in detail in section 8.4.1.

From the considerations above, I conclude that there is a parallelism between the construction *I regret to say* and *regrettably speaking* with respect to the semantics-to-syntax correspondence employing constructions.

8.6. Conclusion and Theoretical Implications

This chapter has shown that there is a parallelism between *to say* in the parenthetical clause *I regret to say* as a style disjunct and *speaking* in the sentential adverb *regrettably speaking*. I have discussed in section 8.3 that they both express a speaker’s speech act and have shown in sections 8.4 and 8.5 that they have a number of parallel functions in the following three respects: optionality, idiomaticity, and constructionalization.

I have shown, in section 8.4.1, with respect to the obligatory overt appearance of *to say* and *speaking*, that they have the function of coercing semantics into conveying the meaning of a speech act as style disjunct, even when such a meaning is not inherently specified by any lexical item. In the case where *to say* and *speaking* are overtly optional, as in *I’m afraid (to say)* and *frankly (speaking)*, the meaning of the speaker’s speech act is inherently specified by the lexical items: *be afraid* and *frankly* respectively. In contrast, in the case of *I regret *(to say)* and *regrettably *(speaking)*, *to say* and *speaking* must be overtly realized through the “coercion” in the semantic structure, because they do not inherently have the meaning of a style disjunct.

In section 8.4.2, it was shown within the view of hierarchical semantics that *to say* and *speaking* both belong to the scope of “I SAY,” or the component of modality expressing the

speaker's comment on the style and form of the proposition. That **-ly thinking* is ungrammatical shows that sentential adverbs as style disjuncts do not belong to the scope of "I THINK," or the other component of modality expressing the speaker's propositional attitude. This shows that *to say* and *speaking* can act as means to "indicate" the speaker's comment on the style and form of the proposition.

Section 8.4.3 has shown, from the perspective of idiomaticity, that *to say* and *speaking* can serve to mark "constructional idioms," or a specialized syntactic form with an idiomatic meaning. In other words, the specialized forms *I regret to say* and *-ly speaking* (where *-ly* is a variable) are considered as idioms at the construction level, marked by such fixed words as *to say* and *speaking*. That *speaking* is a special word that marks the construction can be perceived from the fact that synonyms like *saying* and *telling* do not serve for the same function.

In section 8.5, I have proposed, from the perspective of Construction Grammar, that *I regret to say* and *-ly speaking* serve as constructions (i.e. a pairing between the form and its meaning). Thus, both *to say* and *speaking* play a role to compensate for the mismatch between the syntactic and semantic structures. To put it differently, they resolve the mismatch between the hierarchical syntactic field and the hierarchical semantic field in the universal hierarchical order on "with modality at one end and proposition at the other."

It follows, from the parallel function of *to say* and *speaking* discussed above, that parenthetical clauses and sentential adverbs ending in *-ly* as constructional idioms can be classified as follows:

(35)	a	I am afraid (to say)	frankly, candidly, honestly, truthfully, bluntly, flatly, . . . (= 20a)
	b		broadly, crudely, generally, roughly, approximately, . . . (= 20b)
	c	I regret *(to say)	regrettably *(speaking), . . . (= 20c)

With respect to the optionality of *to say* and *speaking*, the obligatoriness increases in a specific direction: (35a) → (35b) → (35c). Similarly, from the perspective of idiomaticity, idiomatization occurs in the same direction.¹³

Nunberg et al. (1994) divide idioms into two classes, from the perspective of compositionality. They distinguish ‘Idiomatically Combining Expressions’ (ICEs) whose meanings “are distributed among their parts,” from ‘Idiomatic Phrases’ (IPs) which “do not distribute their meanings to their components” (Nunberg et al. (1994: 491)). In this view, in the case of *-ly speaking*, *honestly speaking* in (35a) falls into the class of ICEs, since this meaning is distributed among their parts, while *regrettably speaking* in (35c) has the property of an IP, since its meaning cannot be distributed among its parts. Note here that there is a continuum of gradience between ICEs and IPs: that is, there is no fixed boundary between the two classes. Parallel to this, the same can be said of parenthetical phrases. For example, *I am afraid (to say)* in (35a) has the property of an ICE with its meaning distributed among its parts, whereas *I regret to say* in (35c) has the property of an IP, since its meaning cannot be distributed among its parts. Here too, we can see the parallelism between *I regret to say* and *-ly speaking* with respect to idiomaticity.

The present approach is in accord with the fundamental principle behind Construction Grammar. Within Construction Grammar, “the basic form of syntactic structure is a construction,—a pairing of a complex grammatical structure with its meaning” (Croft (2007:

463)). On this view, we can say that the parallelism between *I regret to say* and *-ly speaking* can be seen in the linking process between the form and its meaning through constructions. That is, the forms [NP V to say] and [Adj-ly speaking] and their constructional meaning (I SAY) can be corresponded by the constructions *I regret to say* and *-ly speaking*. Goldberg (1995: 159) points out that “coercion is only licensed by particular construction in the language.” In particular, the constructions *I regret to say* and *-ly speaking* themselves function in the marked case where the inherent meaning of the lexical items *I regret* and *regrettably* is coerced into having a meaning within the scope of “I SAY” (i.e. a style disjunct). This shows that *I regret to say* and *-ly speaking* is a marked construction where there is a mismatch between the form and its meaning.

Notes

- * This chapter is a revised and extended version of Morito (2012a), a paper that appeared in *KLS* 32, 268–279, which itself was a revision of a paper presented at the 36th Annual Meeting of the Kansai Linguistic Society, held at Osaka Prefecture University, June 11–12, 2011.
- 1. Masuoka (2007: 110–114) suggests that modality of Japanese can be classified into two categories: the class of utterance (*hatsuwa kaiso*) and the class of judgment (*handan kaiso*). The particles *-ieba/iuto/itte* and *-hanasi* are considered to belong to the class of utterance. These particles in Japanese can be assumed to correspond to *speaking* in English.
- 2. Notice that idiomaticity is seen as a difference in degree (Bolinger (1961), Quirk et al. (1985: 1162–1163); cf. gradience).
- 3. Akimoto (2004: 64) points out, with respect to grammaticalization, that units are made by

frequent use, and further regular use makes the components of these units formulate into constructions (cf. Croft (2000)). This can be said of the case of *-ly* and *speaking*.

4. For examples of constructional idioms, Culicover and Jackendoff (2005: 32–36) take up the *way*-construction, the ‘time’-away construction, the sound + motion construction, the fake resultative construction, and others (cf. Culicover (1999)).
5. With respect to the relation between idiomatization and grammaticalization, Akimoto (2004: 60) states that idiomatization occurs at the final stage of grammaticalization, and hence the combination of phrases is tight and is not transparent in their meanings.
6. Okada (1985: 120) points out that *strictly speaking*, but not **strictly saying*, is acceptable as a style disjunct, and that *strange to say/tell/relate* (= surprisingly), but not **strange to speak*, are acceptable as evaluative disjuncts.
7. Bybee (2010: 9), too, from the view of Usage-Based Model, takes *way* to be the special morpheme, or the fixed word, for the *way*-construction. See Bybee and Hopper (2001) for Usage-Based Model.
8. See Jackendoff (1990: 211).
9. Technically, the present approach is in accord with the constructional approach proposed by Jackendoff (1990, 1997a, 2002, 2010). See Jackendoff (2010: 278–326) for the difference of the constructional approaches between Jackendoff (1990) and Goldberg (1995).
10. Cinque (1999: 56) proposes, based on a syntactical view, that adverbs are licensed by spec-head agreement (i.e., functional heads license adverbs) and that the relative order of functional heads thereby determines the relative order of adverbs, as is shown in (i).

- (i) Mood_{speech act} > Mood_{evaluative} > Mood_{evidential} > Mood_{epistemic} > T (Past) > T (Future)
 > Mood_{(ir)realis} > Mod_{root}/Aspect_{habitual}/T (Anterior) > Aspect_{perfect} > Aspect_{progressive}/
 Aspect_{completive}/Voice > V

On the other hand, Ernst (2002) proposes, on a semantic view, that the relative order of the conceptual categories determines the relative order of adverbs since adverbs lexically semantic-select the conceptual categories, as in (ii).

- (ii) SPEECH ACT > FACT > PROPOSITION > EVENT > SPECIFIED EVENTS

Notice that the relative order of modality and proposition is common within the two analyses.

11. See Kajita (1968), Ross (1973), Emonds (1976), and others, for the transformational approach where parenthetical clauses are formed by transformational rules. Jackendoff (1972) proposes in contrary to the transformational approach, that parenthetical clauses are generated in the deep structure where their semantic interpretations are received by semantic interpretative rules. In my view, corresponding rules, or an improved version of semantic interpretative rules, solve the mismatch between syntax and semantics (cf. Culicover and Jackendoff (2005)).
12. Notice that the parenthetical clause here is not overtly realized, in that it is not paused in its ordinary form: “I regret,”
13. It is reasonable to say that this direction accords with the direction of subjectification: propositional > textual > expressive/interpersonal. See Traugott and Dasher (2002), Hopper and Traugott (2003), among others for subjectification.

Chapter 9

Conclusion

9.1. Summary of the Facts and the Arguments

The discussions in this dissertation proceeded as follows. Chapter 1 introduced the aim and the outline of this dissertation.

Chapter 2 revisited the resultative construction from the constructional perspective, introducing basic notions used throughout this dissertation. I proposed that the resultative construction can be licensed by the construction itself, but not by the verb and that the unified restriction on the Direct Object Restriction can be described in conceptual structure, but not in syntactic structure encoding of unaccusativity, as proposed by the Unaccusative Hypothesis. I provided, from a constructional perspective, a revised version of the Direct Object Restriction: The result phrase must be predicated of an affected object. This indicates that the conceptual structure is coerced by constructions themselves, thereby conforming to the Direct Object Restriction, and thus can be directly corresponded to the syntactic form “NP V NP AP/PP” without any effort. This kind of paring between a complex grammatical structure and its meaning is the resultative construction itself.

Chapter 3 showed that the ‘motion verbs plus goal phrase’ is a more abstract construction which includes the motion, caused-motion, and resultative constructions, and that the resultative construction can be seen as a metaphorical extension of the caused-motion construction.

Chapter 4 discussed what I call the ‘verb plus *into*-phrase’ construction, exemplified in

the sentence *John ran into the park*, which expresses an accomplishment. The aim of this chapter was to investigate how this accomplishment is derived in terms of the interaction between verbs and *into*-phrases under the constructionist approach. In this chapter, on the basis of the Path-formation in conceptual structure with the interaction between a verb and an *into*-phrase, it was shown that accomplishments can be divided into two classes. One class of accomplishments is derived lexically from the inherent meanings of verbs. These lexically derived accomplishments are classified as either the *break*-type or the *push*-type. The verb class which expresses *break*-type accomplishments is used to describe a change of state. This class includes verbs such as *break, chip, crash, crush, fracture, rip, shatter, smash, snap, splinter, split, and tear* (Levin (1993: 241)). In contrast, the verbs which express *push*-type accomplishment relate to a change of location. These verbs relate to putting an entity somewhere, typically by moving it in a specific direction. For example, *pour* verbs such as *dribble, drip, pour, slop, slosh, spew, and spurt* are included in the *push*-type class. Thus, *push*-type verbs do not participate in locative alternation. Accomplishments in the other class are syntactically derived from the coercion by the ‘verb plus *into*-phrase’ construction, a more abstract construction including the caused-motion construction and the resultative construction. It follows from this that Path-formation is carried out syntactically or lexically to express an accomplishment. It was shown that the two types of accomplishments explain the syntactic realization of the *into*-phrase. I proposed that the relationship between the meaning of words and the structure of sentences is important in investigating the ‘verb plus *into*-phrase’ construction throughout the chapter.

The purpose of Chapter 5 was to show that what I call the Push Open construction (e.g. *He pushed open the door*) is a special case of the resultative construction, in that the Push Open construction has a conceptual structure determined through a lexical conceptual interaction between *push* and *open*. I argued that *push* has a lexical conceptual structure

which can lexically specify the CAUSE, BECOME, and BE by rules of inference, for this special case of the resultative construction. This chapter also showed that *open* is semantically coerced into a Place meaning and pragmatically functions as a constant of conceptual structure when it occurs with *push*. Through an investigation into the process on the conceptual structure of the Push Open construction, it was proposed that the Push Open construction is based on a subclass of the resultative construction which has a prototypical conceptual structure typified by the verb *push*.

Chapter 6 investigated the configuration *the hell out of* in the V *the hell out of* construction, exemplified by “I {beat/kicked/annoyed/punched/surprised/irritated} the hell out of him,” from a constructional view. In contrast to the Push Open construction in Chapter 5 based on the conceptual structure typified by the verb *push*, I showed that the V *the hell out of* construction is based on the conceptual structure typified by the verb *pull*. Notice here that *pull* is the opposite of *push* with respect to motion. I proposed that the V *the hell out of* construction is construed as having an intensifying interpretation between the interaction in the conceptual structure of verbs and *the hell out of*. I showed that *the hell out of* functions as a helper to give the interpretation of the caused-motion, being coerced by the construction itself.

Chapter 7 analyzed the existence of the body-part *off* construction, which is independent of other constructions like the resultative construction, exemplified by “Pat sang/drank/sewed *his heart out*” and “Terry yelled/wrote/programmed *her head off*.” The reason is that the body-part *off* construction has syntactic and semantic peculiarities of its own, which cannot be reduced to other constructions, particularly the resultative construction. I have proposed that there are crucial differences between the body-part *off* construction and the resultative construction with respect to aspect and idiomaticity. Furthermore, I have investigated the Body-Part NPs and the particle *off* in the body-part *off* construction

respectively, to see how the above property of this construction emerges. Based on the nature of the particle *off*, I have shown that the body-part *off* construction does not stem from verbs of removal.

The purpose of Chapter 8 was to show the parallelism of *to say* in the parenthetical clause *I regret to say* as a style disjunct and *speaking* in the sentential adverbial *regrettably speaking* in that they express a speaker's speech act and share a number of parallel functions in three respects. Also, the configuration *I regret to say* and *regrettably speaking* were seen as "constructions" in terms of Construction Grammar.

First, with respect to the obligatory overt appearance of *to say* and *speaking*, they have the function to coercing semantics into conveying the meaning of a speech act as a style disjunct when this meaning is not inherently expressed by any lexical item. In the case where *to say* and *speaking* are overtly optional, as in *I'm afraid (to say)* and *frankly (speaking)*, the meaning of the speaker's speech act is inherently expressed in a lexical item: *be afraid* or *frankly*. In contrast, in the case of *I regret *(to say)* and *regrettably *(speaking)*, *to say* and *speaking* must be overtly realized for the "coercion" to occur in conceptual structure because they do not inherently have the meaning of a style disjunct.

Second, with respect to idiomaticity, *to say* and *speaking* can mark a "constructional idiom," a specialized syntactic form with an idiomatic meaning, such as *I regret to say* and *-ly speaking*. In other words, the specialized forms *I regret to say* and *-ly speaking* (where *-ly* is used as a variable) are considered as idioms at the construction level, marked by such fixed words as *to say* and *speaking*.

Lastly, *to say* and *speaking* have a role of compensating for the mismatch between syntactic and semantic structure. To put it differently, they resolve the mismatch between the hierarchical syntactic field and the hierarchical semantic field in the universal hierarchical order on "modality and proposition."

It follows, from the parallel functions of *to say* and *speaking* mentioned above, that constructional idioms can be classified as follows:

(1)	a	I am afraid (to say)	frankly, candidly, honestly, truthfully, bluntly, flatly, . . .
	b		broadly, crudely, generally, roughly, approximately, . . .
	c	I regret *(to say)	regrettably *(speaking), . . .

In this section, I have reviewed what I have discussed in this dissertation. I will now conclude the dissertation by giving an overview of the two basic ideas of Construction Grammar.

9.2. Concluding Remarks

This dissertation showed that constructions are established by the interaction between verbs and constructions, on the two basic ideas behind Construction Grammar, as repeatedly mentioned. Along this line, I will explicate the functions and relations among constructions we have examined: the resultative construction in Chapter 2, the motion construction and caused-motion construction in Chapter 3, the ‘verb plus *into* phrase’ construction in Chapter 4, the Push Open construction in Chapter 5, the *V the hell out of* construction in Chapter 6, the Body-Part *off* construction in Chapter 7, and *I regret to say* and *regrettably speaking* in Chapter 8.

As for one of the basic ideas that a construction is a correspondence between form and meaning, this means that a construction acts as a correspondence rule that links the conceptual structure with the syntactic structure. On this view, I assume that the constructions so far discussed in each chapter share a common character in that they serve to resolve the mismatch between syntax and semantics.

In fact, it can be seen that there is a mismatch in all the constructions we have examined. For example, the resultative construction can be specified syntactically as (2a) and semantically as (2b).

- (2) a. [VP V NP AP/PP]
b. ‘make NP become AP/PP, by V-ing’ (Culicover and Jackendoff (2005: 35))

It can be predicted from (2) that *John painted the house green* is paraphrased as *John make the house become green by painting*. The Push Open construction likewise predicts that the paraphrase of *John pushed the door open* or *John pushed open the door* can be paraphrased as *John made the door become open by pushing*, as expected from our analysis in Chapter 3 that the Push Open construction is a special instance of the resultative construction. What these two constructions above share is that the meaning of the verb is treated semantically as an adjunct. As discussed in Chapter 4, these two constructions can be considered instances of a more general abstract construction, the ‘verb plus *into* NP’ construction, from which they inherit their property, as shown in (3).

- (3) a. [VP V into NP]
b. ‘go into NP, making V-ing <manner/means> as a result of motion’

For the resultative construction, (3) predicts the same paraphrase as in (2): *John painted the house green* is paraphrased as *John made the house become green by painting*. The same is true for the case of the *V the hell out of* construction, as can be seen by the paraphrase of *It bores the hell out of me* as *It drives me crazy with boredom*, as discussed in Chapter 6. Notice here that these constructions have a common character in that there is a conflict

between the main and subordinate clause in their form and meaning.

In the case of the Body-Part *off* construction, as discussed in Chapter 7, there is a mismatch between form and meaning with respect to the postverbal NP (or fake object). The Body-Part *off* construction serves to license the fake object. In the case of *I regret to say* and *regrettably speaking*, there is a mismatch between form and meaning with respect to the scope to which they are adjoined. As mentioned before, *to say* in *I regret to say* and *speaking* in *regrettably speaking* both serve to coerce the meaning in the scope of propositional attitude into speech act meaning, although the predicate *be regrettable* originally contributes to a propositional meaning.

From all these considerations, it is reasonable to say that “constructions” can be taken as rules of correspondence. Constructions are used to compensate for the mismatch between form and meaning, thereby conforming to interface uniformity. In order for the meaning to correspond to the form specified by constructions, the inherent meaning specified by lexical items can be coerced into a meaning which corresponds to the syntactic form so specified. In the process of coercion by semantics in isolation, Path-formation, for example, can be carried out in conceptual structure, as I have proposed throughout the present dissertation.

On this view, constructions need to be marked to show that there is a mismatch between form and meaning. In other words, the marked constructions serve to transparently link syntax and semantics when there is a mismatch between form and meaning. With this in mind, let us consider how the constructions we have investigated are marked. In this connection, Culicover and Jackendoff (2005: 35) point out that a special phrase, such as *heart out* in the Body-Part *off* construction overtly mark the Body-Part *off* construction, and that the fake object and resultative phrase that the verb cannot license in the resultative construction mark the resultative construction. In addition, I have proposed that the overtly expressed *into*-phrases mark the ‘verb plus *into* phrase’ construction and overtly expressed *to say* and

speaking mark the constructions *I regret to say* and *regrettably speaking*.

The other basic idea behind Construction Grammar is that “constructions form a network and are linked by inheritance relations which motivate many of the properties of particular constructions” (Goldberg (1995: 67)). With regard to this, I have shown in Chapters 2 and 3, that the resultative construction and the caused-motion construction are metaphorically linked. Chapter 4 suggests that the resultative construction, the caused-motion construction, and the motion construction are linked to a more abstract construction, the ‘verb plus *into* phrase’ construction, by the instance link in the sense of Goldberg (1995: 79). The Push Open construction in Chapter 5 is linked with the resultative construction as a special case of the resultative construction. The V *the hell out of* construction in Chapter 6 is an instance of the caused-motion construction typified by the verb *pull*. Chapter 7 demonstrates that the Body-Part *off* construction is a construction which does not belong to any other construction at the moment.

To sum up, we have investigated the nature and relations of constructions by examining the interaction between verbs and constructions.

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