

CHAPTER 5

Non-Phase Verbs

This chapter investigates the juncture-nexus type of non-phase verbs, proposing logical structures for them. Section 5.1 examines the morpheme that denotes excessiveness (i.e., *-sugi* ‘excessively’); Section 5.2 examines a psych-action verb (i.e., *-nare* ‘become used to’); and Section 5.3 investigates the morphemes that express a concept analogous to modality (*-kane* ‘serve both as (unable)’; *kane-nai* ‘might’; and *-e* (~*u*)‘obtain (possible)’). I argue that the level of juncture for the predicates combined with these V2s is core-juncture, except for *kane-nai* ‘might’, which is a clausal operator.

Before we begin, it will be useful to highlight the characteristics of core-juncture, which can occur in three nexus relations: core cosubordination, core subordination, and core coordination. An example sentence of each from English is shown in (1)

- | | | | |
|-----|----|--|----------------------|
| (1) | a. | Ted tried to open the door. | Core cosubordination |
| | b. | David regretted Amy’s losing the race. | Core subordination |
| | c. | Louisa told Bob to close the window. | Core coordination |

(Van Valin and LaPolla 1997: 455)

A primary semantic characteristic of core-junctures is that they are concerned with two distinct events. For example, (1a) is about the event of *Ted*’s trying as well as the event of the *door*’s opening; and (1b) is about the event of *David*’s regretting as well as the event of *Amy*’s losing. This two-event scene is iconically realized in the layered structure

of the clause in that each predicating element (denoting each event) is housed under its own core, apart from the other. The structural relation of two cores can be first characterized in terms of argument-sharing. In core subordination (1b), the subordinate core obligatorily shares no arguments with the matrix core, but the linked core itself is an argument of the matrix core. On the other hand, it is a necessary feature of the non-subordinate cores (core cosubordination and core coordination) that they share at least one argument between the two cores (e.g., *Ted* in (1a) and *Bob* in (1c)). Second, the relation of the two cores can be distinguished on the basis of operator-dependency. In core cosubordination, a core-level operator must be shared obligatorily across the cores. On the other hand, core coordination is operator-independent. Accordingly, each core can independently take its own operators.

5.1. *-Sugi* ‘excessively’

5.1.1. Meaning

The verb *sugi-* is an intransitive verb which denotes to ‘pass’ or ‘exceed’ as an independent verb, as in (2).¹

- (2) a. tonneru o sugi-ta
tunnel P pass-PST
‘We passed a tunnel.’
- b. kono nimotu wa sanzyuk-kiro o sugi-te-iru
this baggage TOP thirty-kilo P exceed-LINK-exist
‘This baggage exceeds (is over) thirty kilograms.’
- c. Taroo wa wagamama ga sugiru
Taro TOP selfishness NOM exceed
Lit. ‘As for Taro, his selfishness is excessive (Taro is too selfish).’

¹ The particle *o* in (2a) and (2b) marks place, and it is not canonical ACC *o*. Therefore, *sugi-* is considered to be intransitive.

Sugi- can mean to *go beyond* a point in a physical space like *tunnel* in (2a), or a point on measurement like weight in (2b). Both senses refer to physical limits, while *sugi-* can be used to refer to a conceptual limit based on the speaker's judgment, such as *being selfish* in (2c). This sense in (2c) seems to be retained in the meaning of V2 in the compound.

Sentence (3) shows an example of *-sugi* 'excessively' in a compound.

- (3) (booru wa...) banto ni si-te wa tuyoku korogari-sugi-ta
 ball TOP bunt for do-LINK FOC vigorously roll-exceed-PST
 '(The ball) rolled too vigorously for a bunt.' (Text: Kita)

Sentence (3) depicts a scene from a baseball game. Here, the speaker is making a judgment about the 'appropriate' speed for a ball to travel in a bunt, and obviously, the actual speed exceeded what the speaker expected.

Studies on *-sugi* 'excessively' seem quite limited. Sugioka (1985) and Kageyama and Yumoto (1997) seem to be the only studies that have dealt with *-sugi* in detail. Based on these studies, this section first explores the meaning of *-sugi* 'excessively' and then examines its juncture-nexus type. Before we do so, basic facts about *-sugi* 'excessively' are introduced below based on Sugioka's (1985) observations.

First, *-sugi* is rather insensitive to the part-of-speech class of the element it combines with, except that it cannot be combined with an adverb. As shown in (4), *-sugi* can be combined not only with a verb but also with an adjective or noun.

- | | | | |
|-------------|------------------|------------------|----------------------------|
| (4) | <u>Adjective</u> | | |
| a. | ooki-sugiru | big-exceed | 'too big' |
| b. | kiree-sugiru | beautiful-exceed | 'too beautiful' |
| | | | |
| <u>Noun</u> | | | |
| a. | kodomo-sugiru | child-exceed | 'be like a child too much' |
| b. | asobinin-sugiru | gambler-exceed | 'be too much of a gambler' |

Verb

- | | | | |
|----|-----------------|---------------|-------------------|
| a. | hasiri-sugiru | run-exceed | 'run too much' |
| b. | hukurami-sugiru | expand-exceed | 'expand too much' |

-*Sugi* is the only V2 that has the ability to compound with an adjective, a noun as well as a verb in a compound. All the other V2s combine only with a verb.

Second, Sugioka (1985) observes that *-sugi* modifies (i) the frequency of an action, (ii) the degree of a state, (iii) an adverb², and (iv) a quantity, as exemplified in (5) through (8) respectively. The gloss is slightly modified and the bracketing is from Sugioka to show her interpretation of the 'domain' which *-sugi* operates over.

(5) Frequency of action

- | | | |
|----|---------------------------------|--------------|
| a. | Taroo wa [gaisyoku o | si]-sugiru |
| | Taro TOP eating.out ACC | do-exceed |
| | 'Taro eats out too often.' | |
| b. | konogoro [ame ga | huri]-sugiru |
| | recently rain NOM | fall-exceed |
| | 'Recently, it rains too often.' | |

(6) Degree of state

- | | | |
|----|------------------------------|--|
| a. | kono mati wa [sizuka]-sugiru | |
| | this town TOP quiet-exceed | |
| | 'This town is too quiet.' | |
| b. | Taroo wa [waka]-sugiru | |
| | Taro TOP young-exceed | |
| | 'Taro is too young.' | |

(7) Adverb

- | | | |
|----|--|--|
| a. | yuube wa [osoku made oki-te-i]-sugi-ta | |
| | last night TOPlate till get.up-LINK-exist-exceed-PST | |
| | '(I) stayed up too late last night.' | |
| b. | Taroo wa [takaku tobi]-sugi-ta | |
| | Taro TOP high jump-exceed-PST | |
| | 'Taro jumped too high.' | |

² This grouping is by Sugioka (1985), who includes a syntactic category 'adverb' among semantic categories.

(8) Quantity

- a. Taroo wa [aisukuriimu o tabe]-sugi-ta
Taro TOP ice cream ACC eat-exceed-PST
'Taro ate too much ice-cream.'
- b. Taroo wa [kane ga ari]-sugiru
Taro TOP money NOM exist-exceed
'Taro has too much money.'
- c. kono mati ni wa [kooen ga sukuna]-sugiru
this town in TOP park NOM few-exceed
'There are too few parks in this town.'

Third, Sugioka notes that *-sugi* can follow a complex form such as verb-CAUS, verb-NEG, and the honorific-marked verbal complex, as shown in (9a)-(9c) respectively.

- (9)
- a. Taroo wa kaisya de [osoku made hatarak-ase-rare]-sugiru
Taro TOP company at late till work-CAUS-PASS-exceed
'Taro is caused to work until too late at his work.'
 - b. Taroo wa [nani mo sir-ana]-sugiru³
Taro TOP what FOC know-NEG-exceed
'Taro is too ignorant about anything.'
 - c. sensee wa [hon o o-yomi ni nari]-sugiru
teacher TOP book ACC H-read HH-exceed
'The professor reads too many books.'

³ *Nai* is a lexical item which means 'not exist.' The same form can affix to a verb or adjective, in which case, it marks negation. When *-sugi* follows *nai* as an independent word, it must change into *nasa*, as in (a).

- (a) Ben wa tikara ga nasa-sugiru (*na-sugiru)
Ben TOP power NOM not.exist-exceed
'Ben is too weak.'

However, when it affixes to a verb stem, some speakers use the form *-(a)nai*, as is the case with Sugioka's example in the main text, whereas others use the form *-(a)nasa* as in (b) (e.g., Makino and Tutui (1986)).

- (b) Tomoko wa yasai o tabe-nasa-sugiru
Tomoko TOP vegetables ACC eat-NEG-exceed
'Tomoko eats too few vegetables.'

This variation seems dialectal but the distinction seems to be attributed to a morphological fact that *-sugi* can be combined with either a noun or an adjective. The speaker who uses *-(a)nasa* is affixing *-sugi* to a nominal form (where *-sa* is the nominalizer for an adjective *nai*), whereas the speaker who uses *-(a)nai* is affixing *-sugi* to an adjective *nai*.

There are two points which are not discussed in Sugioka (1985). The first point is that *-sugi* is rather insensitive to the Aktionsart classes of the base verb. Sentences in (10) show that *-sugi* can occur with virtually any Aktionsart classes.

- (10) a. sizuka-sugiru [state] (adjective)
 quiet-exceed
 ‘It is too quiet.’
- b. zikan ga ari-sugiru [state] (verb)
 time NOM exist-exceed
 ‘There is too much time.’
- c. ookuno hito ga sini-sugi-ta [achievement]
 many people NOM die-exceed-PST
 ‘Too many people died.’
- d. nori ga kawaki-sugi-ta [accomplishment]
 glue NOM dry-exceed-PST
 ‘The glue became too dry.’
- e. warai-sugi-ta [activity]
 laugh-exceed-PST
 ‘I laughed too much.’
- f. eki-made aruki-sugi-ta [active accomplishment]
 station-as far as walk-exceed-PST
 ‘I walked to the station too many times.’
- g. kopppu o wari-sugi-ta [causative achievement]
 glasses ACC break-exceed-PST
 ‘I broke too many glasses.’
- h. sentakumono o kawakasi-sugi-ta [causative accomplishment]
 laundry ACC dry-exceed-PST
 ‘I dried the laundry too much.’
- i. koma o mawasi-sugi-ta [causative accomplishment]
 top ACC spin-exceed-PST
 ‘I spun the top too much.’

The second point is that *-sugi* requires an event to contain something scalar. Observation of Sugioka’s examples suggests that the acceptability of the sentence depends on whether

the sentence contains an element that is scalar. It can be that: (i) the predicate alone denotes a scalar state like (11);

- (11) a. sizuka-sugiru [state] (adjective)
quiet-exceed
'It is too quiet.'
- b. ooki-sugiru [state] (adjective)
big-exceed
'It is too big.'
- c. kodomo-sugiru [state] (noun)
child-exceed
'He is too childish.'

(ii) the predicate denotes an activity and it is interpreted to signify that the action is conducted excessively as in (12);

- (12) a. naki-sugi-ta [activity]
cry-exceed-PST
'I cried too much.'
- b. ame ga huri-sugi-ta [activity]
rain NOM fall-exceed-PST
'It rained too much.'

(iii) one of the arguments is quantifiable as in (13a), or it contains a quantifier as in (13b);

- (13) a. zikan ga ari-sugiru
time NOM exist-exceed
'I have too much time.'
- b. takusan kai-sugi-ta
a lot buy-exceed-PST
'I bought too much.'

or (iv) the sentence contains an adverbial element that denotes a scalar state like (14).

- (14) a. yukkuri hanasi-sugiru
slowly talk-exceed
'He talks too slowly.'

- b. kyuu ni toke-sugi-ta
 suddenly melt-exceed-PST
 ‘It melted too suddenly.’

In contrast, a state or an event which is not scalar cannot occur with *-sugi*; for example, a state such as *be completely cured* in (15), or a telic event which contains an NP with a bounded quantity, such as an active accomplishment verb in (16).

- (15) a. kanzen ni naot-te-iru
 completely be.cured-LINK-exist
 ‘It is completely cured.’
- b. * kanzen ni naori-sugi-te-iru
 completely be.cured-exceed-LINK-exist
- c. * kanzen ni naot-te-i-sugi-ru
 completely be.cured-LINK-exist-exceed-NPST
- (16) a. aisukuriimu o hito-tu tabe-ta
 ice-cream ACC one-CL eat-PST
 ‘I ate an ice-cream.’
- b. * aisukuriimu o hito-tu tabe-sugi-ta
 ice-cream ACC one-CL eat-exceed-PST
 (intended) ‘I excessively ate one ice-cream.’

These examples further show that *-sugi* must occur with an element that is a scalable quantity. Accordingly, it can be hypothesized that the sequence preceding *-sugi* must contain a scalar element.

Kageyama and Yumoto (1997:114-115) make detailed observations as to which element *-sugi* is particularly sensitive to, as in the following:⁴

- (i) *-sugi* does not have an effect on an element that modifies the subject of a transitive verb (e.g., in the example below, *-sugi* cannot refer to the excessive state of *smallness*, which modifies the subject *kodomo* ‘child’).

⁴ The original work is written in Japanese. The translation is my own.

- (17) * kono kooen de wa tiisai kodomo ga asobi-sugiru (ibid: 106)
 this park in TOP small child NOM play-exceed
 ‘In this park, too small a child plays.’

(ii) *-sugi* may have an effect on an element that modifies the object of a transitive verb (e.g., in the example below, *-sugi* can refer to the excessive state of *bigness*, which modifies the object *mise* ‘store’).⁵

- (18) ookii mise o hiraki-sugi-te keeee-nan ni otiit-ta (ibid: 112)
 big store ACC open-exceed-LINK management-difficulty to fall.into-PST
 ‘I opened too big a store, and it experienced financial difficulties.’

(iii) If a verb phrase contains an adverbial element which bears *dankaisee* ‘gradualness’, it will be the first element that *-sugi* has an effect on (e.g., in the example below, *-sugi* refers to the excessive state of *earliness*).

- (19) inu no ko ga hayaku umare-sugi-te
 dog GEN child NOM early be.born-exceed-LINK
 oo-awate-si-ta (ibid: 106)
 big-getting.flustered-do-PST

‘The dog’s baby was born too early, and we panicked.’

⁵ I do not share this intuition that *-sugi* may have an effect on an element that modifies the object of a transitive verb. In Kageyama and Yumoto’s example (18) in the main text, *-sugi* modifies the adjective *ookii* which is part of the object NP headed by *mise* ‘store’. If this is the case, adding a quantifier *ik-ken* one-CL ought not to change the acceptability of the sentence. However, it is marginal at best as shown in (a). The reading obtained is that the speaker opened an excessive number of stores, which is incompatible with the number *ik-ken* one-CL denoted by the classifier. The sentence in (b) shows a similar point.

- (a) ? ik-ken no ookii mise o hiraki-sugi-te keeee-nan ni otiit-ta
 one-CL GEN big store ACC open-exceed-LINK management-difficulty to fall.into-PST
 (intended) ‘I opened too big a store, and it is in financial difficulties.’
- (b) ? gakusee ga ip-pon no nagai ronbun o kaki-sugi-ta
 student NOM one-CL GEN long paper ACC write-exceed-PST
 (intended) ‘The student wrote too long a paper.’

(iv) *-sugi* may mean an excessive quantity of the objects of a transitive verb (e.g., in the example below, *-sugi* refers to the excessive quantity of *sakana* ‘fish’).

- (20) sakana o yaki-sugi-te amat-te-simat-ta (ibid: 112)
fish ACC grill-exceed-LINK be.left.over-LINK-put-PST
‘Because we grilled too many fishes, a lot of them were left over.’

(v) If any gradualness-bearing element is not present,

(v-a) *-sugi* expresses excessiveness of time when combined with a continuation verb (e.g., in the example below, *-sugi* refers to the excessiveness in terms of time spent in the *playing* action).

- (21) sono kodomo wa asobi-sugiru
that child TOP play-exceed
‘That child plays too much.’

(v-b) *-sugi* expresses the excessiveness of frequency if an interpretation of repetition is possible.

- (22) Hanako wa dekake-sugiru
Hanako TOP go.out-exceed
‘Hanako goes out too frequently.’

(v-c) When *-sugi* is combined with an unaccusative verb or a transitive verb which involves a change of state, and if the verb bears a sense of *dankaisee* ‘gradualness’, *-sugi* expresses excessiveness of the state; otherwise, it refers to the excessive quantity of the objects. The sentences in (23a) and (23b) are examples of an unaccusative verb and a transitive verb for the former, while the sentences in (23c) and (23d) are examples of the latter.

- (23) a. hutori-sugi-ta
become.fat-exceed-PST
‘I became too fat.’

- b. suupu o atatame-sugi-ta
soup ACC heat.up-exceed-PST
'I heated up the soup too much.'
- c. koori ga toke-sugi-ta
ice NOM melt-exceed-PST
'Too much ice melted.'
- d. sakana o yaki-sugi-ta
fish ACC grill-exceed-PST
'I grilled too much fish.'

(v-d) If it occurs with a verb that takes a path, it may denote the excessiveness of the quantity of the subjects (e.g., in the example below, *-sugi* refers to the excessive number of *tourists*—Kageyama and Yumoto (1997) analyze this usage of motion verb as a type of ‘Incremental Theme’ (Dowty 1991) where a change of state proceeds as the action progresses).

- (24) konogoro wa kankokyaku ga oranda-zaka o aruki-sugite-i-te...
recently TOP tourist NOM Holland-slope P walk-exceed-exist-LINK
'Recently, too many tourists walk on the *oranda-zaka* and...'
(Kageyama and Yumoto 1997:111)

(v-e) If it occurs with an unaccusative verb that expresses existence or appearance or a transitive verb that expresses possession or creation, the prioritized interpretation is the excessive quantity of the subject for the former in (25a) and the excessive quantity of the object for the latter in (25b).

- (25) a. ziko ga okori-sugiru
accident NOM happen-exceed
'Too many accidents happens.'

- b. gakusee ga hakaseronbun o kaki-sugi-te
 student NOM dissertation ACC write-exceed-LINK
- kyookan ga isogasii (ibid: 113)
 advisor NOM busy
- 'The students write too many dissertations, and their advisor is busy.'

Kageyama and Yumoto (1997: 120-121) conclude that if the complement of *-sugi* contains an adverbial expression that bears *dankaisee* 'gradualness', the element receives the effect of *-sugi*, and that if no such element is present, various factors are checked, for example, whether an Incremental Theme is present or, whether it is possible to interpret the event as continuous or repeated.

Kageyama and Yumoto's (1997) observations are detailed and insightful. However, their observations can be organized alternatively, making reference to the layered structured of clause, as outlined in 1) through 4).

- 1) If V1 in the nucleus itself denotes a scalar state (noun, adjective or some accomplishment verbs), interpret the state denoted by the predicate is at its excess. Sentence (26a) is an example of a noun; (26b), an adjective; and (26c), an accomplishment verb.⁶
- (26) a. Tomoko wa kodomo-sugiru
 Tomoko TOP child-exceed
 'Tomoko is too childish.'

⁶ Note that not all nouns can occur with *-sugi* as indicated by the unacceptability of (a). In (26a) in the main text, *kodomo* 'child' denotes a human. However, *-sugi* can target the state of *Tomoko*'s being childish, which seems to be the metonymic use of *kodomo* 'child'.

(a) # kore wa hon-sugiru
 this TOP book-exceed
 'This is a book too much.'

- b. heya ga kitana-sugiru
 room NOM dirty-exceed
 ‘The room is too dirty.’
- c. hutori-sugi-ta
 become.fat-exceed-PST
 ‘I became too fat.’

If 1) is not applicable, rules of 2) through 4) come into play.

- 2) If the immediately preverbal position contains a quantifier, interpret the quantity at its excess, as shown in (27).

- (27) a. tamago o takusan tabe-sugi-ta
 egg ACC a.lot eat-exceed-PST
 ‘I ate too many eggs.’
- b. tamago o hito-hako kai-sugi-ta
 egg ACC one-pack buy-exceed-PST
 ‘I bought one pack extra of eggs.’

- 3) If the core which houses V1 has a core internal modifier or a peripheral adjunct that denotes a scalar concept, interpret the state at its excess.

Sentence (28a) is an example of a postpositional phase; (28b), a core adverb; and (28c), a peripheral adjunct to the core.

- (28) a. tooku made iki-sugi-ta
 far as.far.as go-exceed-PST
 ‘I went too far.’
- b. hayaku syaberi-sugi-ta
 fast speak-exceed-PST
 ‘I spoke too fast.’
- c. paatii ni hayaku tuki-sugi-ta
 party to early arrive-exceed-PST
 ‘I arrived at the party too early.’

When there is a conflicting scalar element within the core, the element at the immediately preverbal position outranks the others, since it is the unmarked focus position in Japanese (Kuno 1978, Kim 1988). Example (29) shows the contrast in how the interpretation changes depending on which element occurs at the immediately preverbal position.

- (29) a. isoide tamago o takusan tabe-sugi-ta
 in.a.hurry egg ACC a.lot eat-exceed-PST
 'I ate too many eggs in a hurry.'
- b. takusan tamago o isoide tabe-sugi-ta
 a.lot egg ACC in.a.hurry eat-exceed-PST
 'I ate a lot of eggs too hurriedly.'

- 4-1) If the rules in 1)-3) are not applicable, and if the predicate contains a [-dynamic]⁷ component (i.e., state, achievement, some accomplishment verbs), interpret the quantity of the referent of the undergoer argument to be at its excess. Example (30a) is the case of a state verb, (30b), an achievement, and (30c), a causative achievement.

- (30) a. okane ga ari-sugi-ru
 money NOM exist-exceed-PST
 'There is too much money.'
- b. hito ga sin-i-sugi-ru
 person NOM die-exceed-PST
 'Too many people die.'
- c. hako ni mikan o ire-sugi-ru
 box to orange ACC put-exceed-PST
 'I put too many oranges into the box.'

- 4-2) If the predicate contains none of the above but a [+dynamic] component, interpret the activity or causing action to be at its excess; either in frequency or degree of action, based on other contextual information.

- (31) a. kodomo ga naki-sugi-ru
 child NOM cry-exceed-PST
 ‘The child cries too much.’
- a. odori-sugi-ta
 dance-exceed-PST
 ‘I danced too much/too many times.’
- a. tataki-sugi-ta
 beat-exceed-PST
 ‘I beat too many times.’

In brief, *-sugi* encodes excessiveness of a scalar or a quantifiable state denoted by the predicate, a quantifier, or a core-level modifier. Otherwise, the quantity of the referent of the undergoer is interpreted as at its excess, or the action is interpreted as being at its excess. When there is a conflicting element, contextual cues or the position of the scalar elements that occur help disambiguate the interpretation.

As far as the logical structure is concerned, Kageyama and Yumoto (1997: 123) propose the conceptual structure of *-sugi* as: $[Event \quad] GO [TO[OVER[STANDARD]]]$. I interpret their representation as analogous to my understanding of the meaning of *-sugi* that ‘an element is excessive’ in either a physical or conceptual domain, where the excessiveness is evaluated on the basis of the perceptualizer’s ‘standard’. Given this meaning (‘an element is excessive’), I assume that *-sugi* takes the logical structure of an identificational construction, and I propose the following lexical entry for *-sugi*:

- (32) **be_**(*x*, [**excessive_**])
 where *x*=LS, and the LS must contain a scalar element.

⁷ Recall that [+dynamic] refers to an activity predicate in Van Valin and LaPolla (1997) and does not entail the feature [-static] (See chapter 2).

5.1.2. The juncture-nexus type of *-sugi*

Now, we turn to the examination of the juncture-nexus type of *-sugi*. From Sugioka's (1985) example (9a), we already know that *-sugi* can occur outside of the sequence of the causative *-(s)ase* followed by the direct passive morpheme *-(r)are*. The relevant example is repeated as (33a), and the fact that *-(r)are* can independently proceed *-sugi* is shown in (33b).

- (33) a. Taroo wa kaisya de [osoku made hatarak-ase-rare]-sugiru
Taro TOP company at late till work-CAUS-PASS-exceed
'Taro is caused to work until too late at his work.'
- b. kare wa sinbun de amarinimo
he TOP newspaper in much
home-rare-sugi-masi-ta...
praise-PASS-exceed-POLITE-PST
'He was praised too much in the newspaper.' (Text: Kita)

Recall that if the direct passive can follow a predicate, it entails that the predicate together with *-(r)are* constitutes a core. Thus, the base verb+*(r)are* in (33b) constitutes a single core. Since *-sugi* occurs outside of it, *-sugi* must be housed under a separate core from the core of the base verb. This means that the juncture-nexus type is core cosubordination or looser (see (4) in Chapter 2 for the hierarchy of the juncture-nexus types). To further examine the specific structural type, we can consider the interpretation of *-(s)ase*. Consider (34).

- (34) a. watasi wa Taroo o hasir-ase-sugi-ta
I TOP Taro ACC run-CAUS-exceed-PST
'I made Taro run too much./*I excessively have him run.'

- b. takusan nom-ase-sugi-ta
 a lot drink-CAUS-exceed-PST
 ‘I made him drink too much./
 *I excessively have him drink a lot.’

Example (34) shows that when *-sugi* follows the causative *(s)ase*, it expresses the excessiveness of the event denoted by the base verb; namely, (34a) expresses that the causee ran excessively, and (34b) expresses that the causee drank too much, but they cannot refer to the excessiveness of the causing action alone. This indicates that *-(s)ase* before *sugi* must denote ‘cause’ but not ‘jussive’. This in turn means that the verb+*(s)ase* in (34) must be a nuclear coordination, housed under a core. The choice now is whether verb-*(s)ase* and *-sugi* takes a core cosubordination or core subordination. Since *-sugi* does not contribute any argument (realized as an NP), the nexus relation cannot be non-subordinate. Then, the juncture-nexus type must be core subordination.

This point is further supported by the following example.

- (35) Taroo ga nani mo sir-ana-sugiru
 Taro NOM what FOC know-NEG-exceed
 ‘Taro is too ignorant about anything.’

This sentence shows that *-sugi* is separated from the base verb by *-nai* ‘NEG’. Notice that the scope of negation is over the core argument *nani-mo* what-FOC ‘anything’, indicating that it is core negation. Obligatorily sharing a core-level operator is the characteristic of core cosubordination. Then, the verb-*sugi* cannot be cosubordination, since the base verb takes the operator on its own in (35). In other words, the core which houses the base verb is operator independent (see the representation of (36)). If the verb-*sugi* is an instance of core subordination, this phenomenon is accounted for.

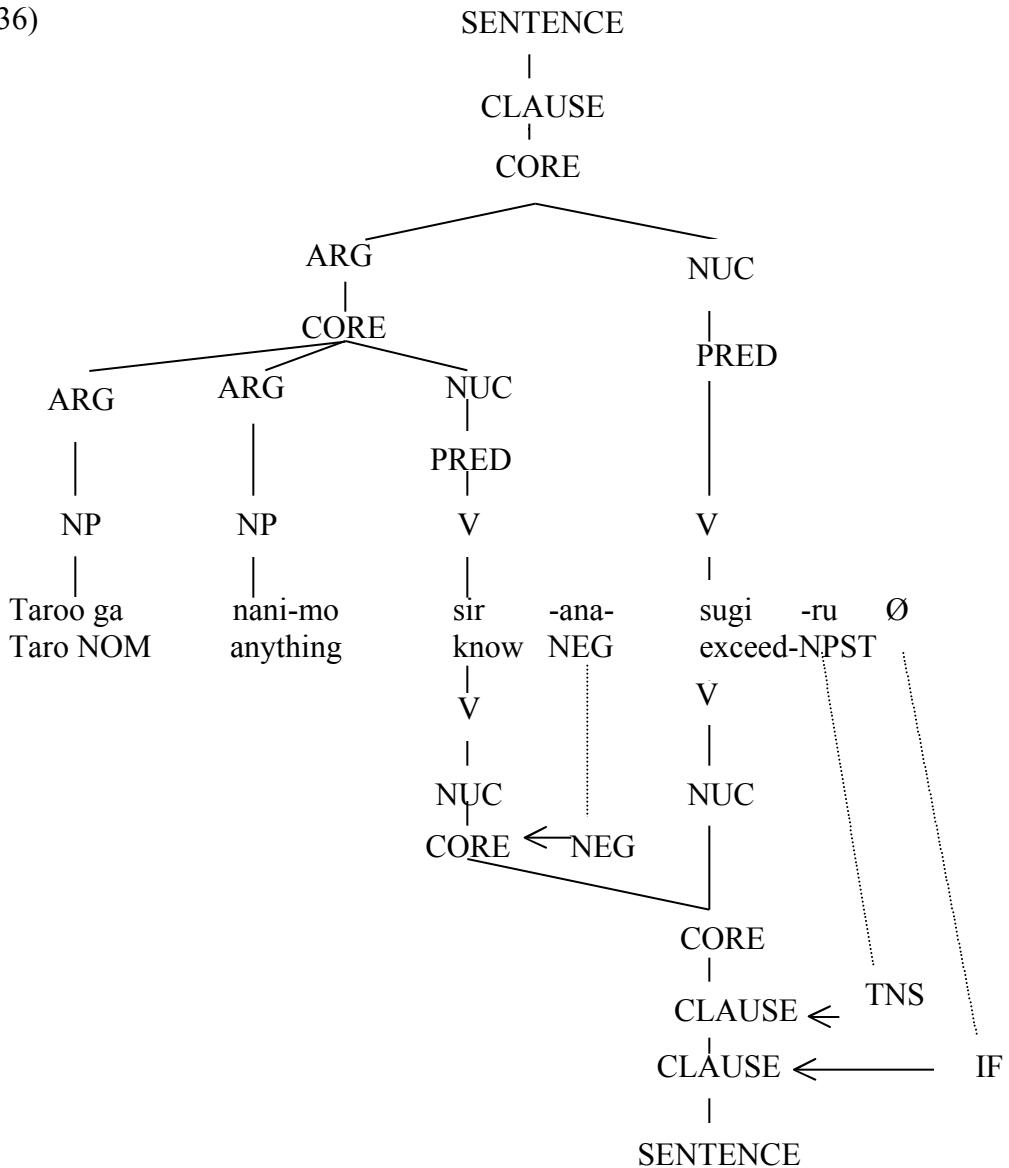
Based on this discussion, I propose that the juncture-nexus type of verb-*sugi* is core subordination. This syntactic representation mirrors the semantics of *-sugi* (**be**_(x, [excessive])) in the sense that *-sugi* is a higher predicate which takes the entire event in its scope while making a special reference to a scalar element in the event. It also accounts for the fact that *-sugi* can have scope over the element that appears as an adjunct to the core of the base verb, as we saw in the examples in (7a), (7b), and (9a).

The constructional template is proposed in Table 5.1. An example of the LSC for *-sugi* is shown in (36).

Table 5.1. Constructional template for *-sugi* ‘excessively’

CONSTRUCTION
verb- <i>sugi</i> construction
SYNTAX
Juncture: Core Nexus: Subordination Construction type: compounding Linking: Default
MORPHOLOGY
Combine <i>-sugi</i> with a verbal stem in the <i>renyookee</i> ‘infinitive’ form
SEMANTICS
Lexical entry of <i>-sugi</i> : be _(x, [excessive_]) where x=LS, and the LS must contain a scalar element.
PRAGMATICS
Illocutionary force: Unspecified Focus structure: Unless the state denoted by the predicate itself is scalar, the target of <i>-sugi</i> is the immediately preverbal element, which is within the unmarked actual focus domain.

(36)

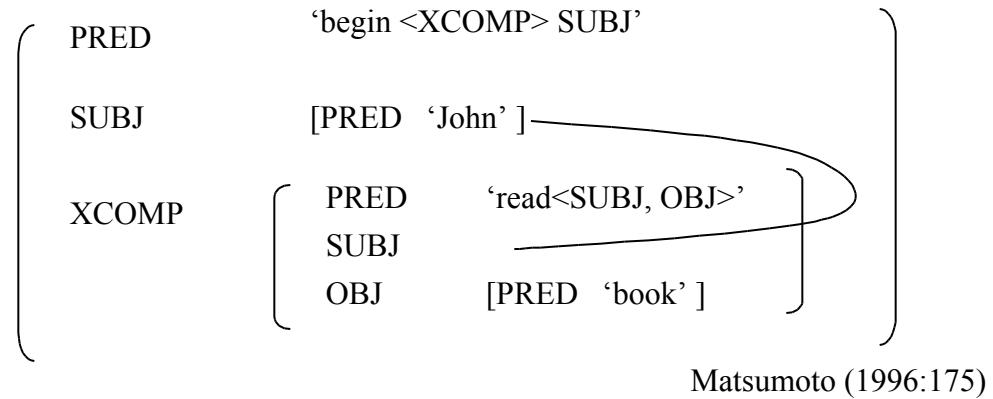


5.1.3. Domain and the structural type

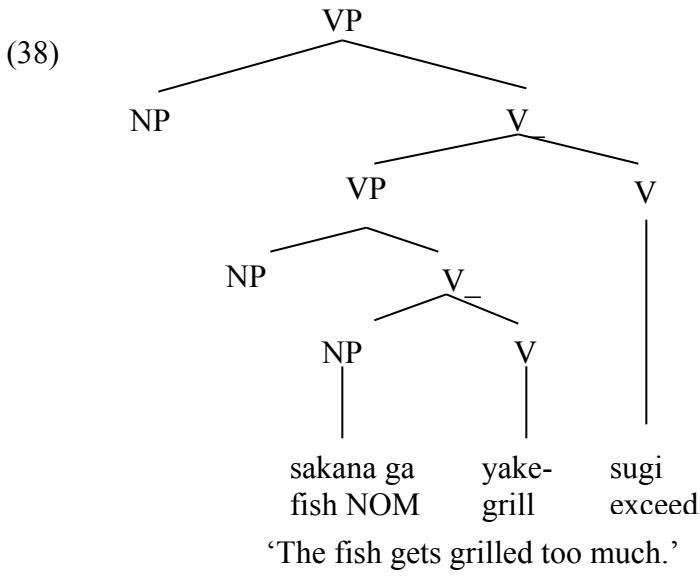
There are two further issues that need to be addressed: (i) the domain which *-sugi* has scope over; and (ii) verb-*sugi*'s structural type. Each point is elaborated below.

Matsumoto (1996) analyzes *-sugi* as a Type I compound. Though he does not specifically discuss *-sugi*'s domain, his representation for a Type I compound in (37) suggests that the domain of *-sugi* is a constituent which corresponds to XCOMP.

- (37) Type I (example from non-intentional *hazime* ‘begin’)



Sugioka (1985: 202) suggests that *-sugi* “has a flexible domain and can attach to either V or S.” Kageyama (1993) does not seem to specify the domain, but in Kageyama and Yumoto (1997), this issue is addressed, adopting a version of VP Internal Subject Hypothesis. Kageyama and Yumoto assume that the subject NP moves to the Spec position of VP headed by *-sugi* in (38). They claim that an element under VP at the surface structure (except for a modificational element of ‘surface subject’) can receive the interpretation of excessiveness.



Kageyama and Yumoto make interesting observations. They observe that the *ni*-marked element in the following examples can also be the target of *-sugi*.

- (39) a. hako o takai-tokoro-ni oki-sugi-ta (ibid: 122)
 box ACC high-place-P put-exceed-PST
 ‘I put the box at too high a place.’
- b. burooti o sita no hoo ni tuke-sugi-ta
 brooch ACC bottom of direction-P attach-exceed-PST
 ‘I put the brooch at too low a place.’

Sentences in (39) are accounted for since the modificational element is under VP. The unacceptability of (40) is also accounted for since the adverbs in (40a) and (40b) both are sentential modifiers which appear outside of the VP.

- (40) a. kare wa tasika ni benkyoo-si-sugi-ru
 he TOP certainly studying-do-exceed-PST
 ‘He certainly studies too much/*I am too certain that he studies.’

b. kanozyo wa akiraka ni kodomo o
she TOP evident P child ACC

amayakasi-sugi-te-i-ru (ibid: 123)
spoil-exceed-LINK-exist-NPST

‘She evidently spoils her child too much.
/*It is too evident that she spoils her child.’

Sugioka’s (1985) characterization of *-sugi*’s target domain as V_{_}/S alone does not seem to account for why it is impossible to have the interpretation of excessiveness of *certainty* or *evidentness* in (40). In contrast, the analysis I presented earlier can readily account for this impossibility.

It was proposed that the juncture-nexus type of verb-*sugi* is core subordination. This means that the target domain of *-sugi* is a core which includes peripheral adjuncts to the core. By this, an example like (41) is referred to where *hayaku* ‘early’ is peripheral to the core.

(41) paatii ni hayaku tuki-sugi-ta
party to early arrive-exceed-PST
‘I arrived at the party too early.’

In (39), the postpositional phrases are the argument-adjunct postpositions. Since they are internal to the linked core, the scalar element can unsurprisingly be the target of *-sugi*. In (40), the reasons an adverb like *tasika-ni* ‘surely’ or *akiraka-ni* ‘evidently’ cannot be the target of *-sugi* follow naturally from the fact that they are clausal modifiers, which are outside the domain of *-sugi*.

Let us now turn to the second point concerning the structural type. Following Shibatani’s (1973a) analysis of aspectual compounds, Matsumoto (1992, 1996) basically

recognize that *-sugi* takes an intransitive-type structure, in which *-sugi* as a matrix predicate takes the sentential subject as its argument. This structure is also characterised as raising-type construction. The question is whether *-sugi*'s structure should be characterized in terms of 'raising'. In RRG, the phenomenon of 'raising' is such that the semantic argument of the linked core appears in the syntactic slot which would normally be for the privileged syntactic argument (PSA) of the matrix core. The PSA slot is made available due to the macrorole-attransitivity (or -intransitivity) of the raising predicate. Thus, 'raising' predicate must occur in non-subordinate core, which involves argument-sharing. I have already argued that the base verb and *-sugi* enter into core subordination, which do not involve argument-sharing; namely, *-sugi* is the matrix core, which takes the core of the base verb as its argument. Hence, it seems inaccurate to characterize *-sugi* in terms of raising.

5.2. Psych-action verb: *-nare* 'become used to'

The next verb we examine is *-nare*. *Nare-*, as an independent verb, means to 'become used to' as shown in (42).

- (42) atui tenkoo ni nare-ta
 hot weather DAT become.used.to-PST
 'I got used to hot weather.'

This verb can be considered as a kind of psych-action verb since it involves the actor's psychological state while adjusting to a situation. The meaning of *-nare* in the compound is analogous to this main sense as an independent verb, as shown in (43).

- (43) densya ni nori-nare-ta
 train to get.on-become.used.to-PST
 'I got used to taking trains.'

Example (44) shows that the passive morpheme -(r)are can intervene between V1 and V2.

- (44) obaasan wa oziisan ni
 old.woman TOP old.man by

 nagur-are-nare-te-i-ru-mitai
 hit-PASS-become.used.to-do-LINK-exist-appear

‘It appears that the old woman is used to being beaten up by the old man.’

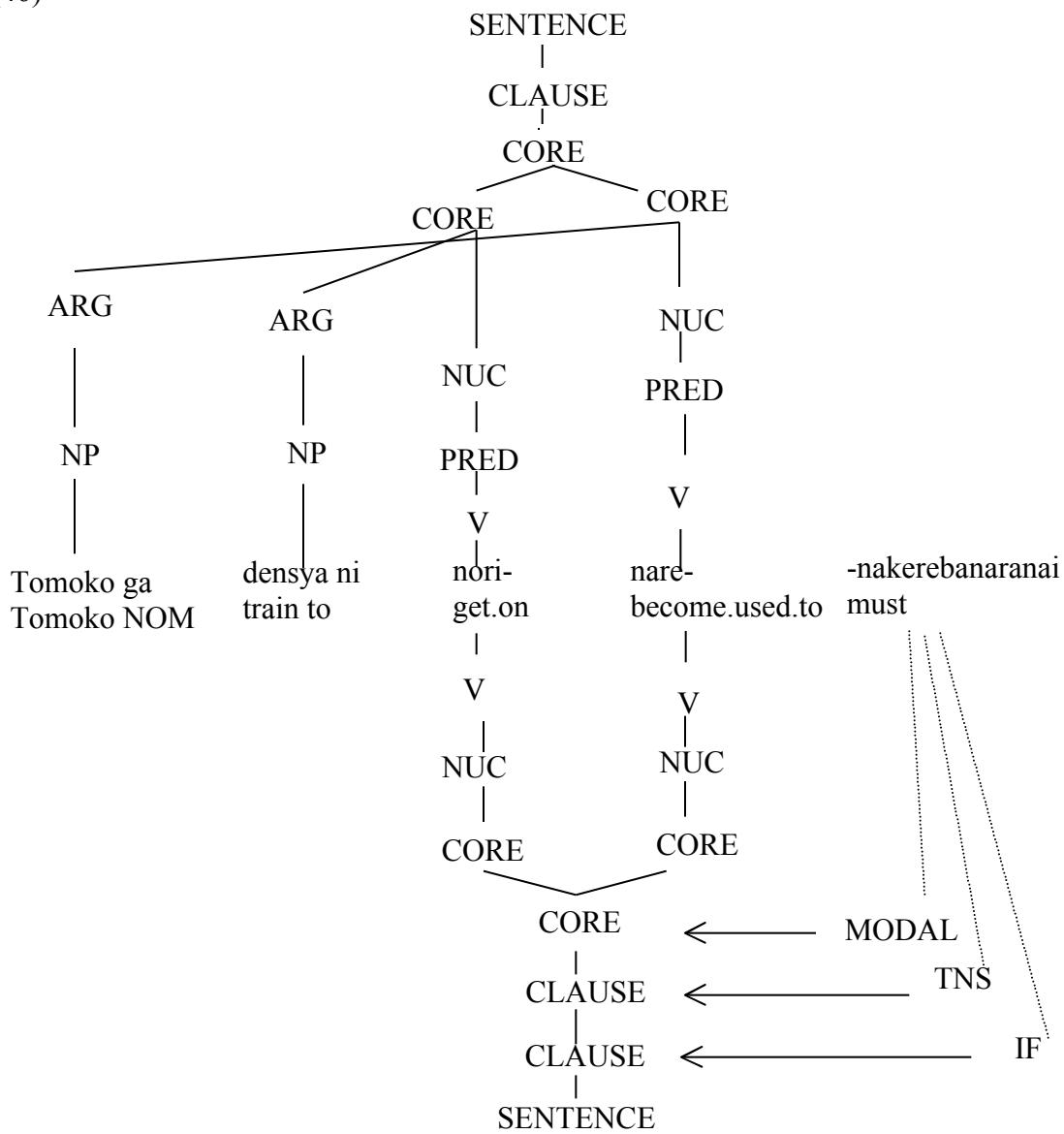
The ability to have the passive morpheme -(r)are in between the base verb and -nare shows that the V1 and V2 are housed under separate cores.

Moreover, when it occurs with a deontic modal *nakerebanaranai* ‘must’, both cores enter into its scope, as shown in (45).

- (45) Tomoko wa densya ni nori-nare-nakerebanaranai
 Tomoko TOP train to get.on-become.used.to-must
 ‘Tomoko must get used to taking trains.’

In (45), *Tomoko* is obliged to ‘get used to taking trains’ and not just to ‘get used to’. The property of obligatorily sharing a core-level operator entails that verb-*nare* is an instance of core cosubordination. An example of LSC for verb-*nare* is shown in (46).

(46)



This construction is missing an argument position at the pre-nuclear position in the dependent core. The missing argument is the same as the actor of the matrix core. It is typical of a psych-action event to occur in core cosubordination in that the actor of the matrix core must be involved in the event denoted by the dependent core because the psych-action takes place by the actor's experiencing the situation or embracing attitudes toward such an situation. I propose the LS for *-nare* 'become used to' as:

BECOME used.to_ (x, y), where $y=LS$

The next section turns to morphemes that express a concept similar to modality.

5.3. Modality-related V2s

Three V2s are under consideration; *-e* ($\sim u$) ‘obtain (possible)’; *-kane* ‘serve both as (unable/reluctant/unwilling)’ and its NEG-attached form *kane-nai*. This section argues that *-e* ($\sim u$) and *-kane* enters into a type of core-juncture, whereas *kane*’s NEG-attached form, *kane-nai*, functions as a clause level operator, and that *kane* and *kane-nai* do not enter into a mere negative-positive opposition. The discussion considers first *-kane* ‘serve both as (unable/reluctant/unwilling)’, then, *kane-nai* ‘might’, and finally *-e* ($\sim u$) ‘obtain (possible)’.

5.3.1. *-Kane* ‘serve both as (unable)’

A lexical verb *kane-* means to ‘serve both as’ or ‘combine something with’, as shown in (47) and (48).

- (47) kono hako wa tukue to isu o kane-te-iru
this box TOP desk and chair ACC serve.both.as-LINK-exist
‘This box serves both as a desk and a seat.’

- (48) sigoto to tanosimi o kane-te Kyooto e it-ta
work and pleasure ACC serve.both.as-LINK Kyoto to go-PST
‘Combining business with pleasure, I went to Kyoto.’

When *-kane* occurs as V2, it yields a meaning quite distinct from the original sense.

Example (49a) is the plain sentence, as opposed to (49b) which contains *-kane*. *-Kane* is typically used in formal speech, expressing a sense of inability or one’s having difficulty in realizing a situation in accordance with one’s expectations.

- (49) a. sore wa moosi-age-masu
 that TOP say-H-POLITE
 ‘That, I will tell you.’
- b. sore wa moosi-age-kane-masu
 that TOP say-H-serve.both.as-POLITE
 ‘That, it is difficult for me to tell you./I can’t tell you./
 I am unwilling to talk.’

What (49b) portrays is that the speaker is presumably concerned with the negative outcome of commenting on something, and consequently, he is unwilling to talk. There appears to be no single lexical item in English that precisely corresponds to the semantics of *-kane*. It seems to be dually functioning as a deontic modal (in the sense of inability) and a propositional attitude predicate (in the sense of being unwilling) as the English translation indicates in the (49b) example. Given that a deontic modal is a core operator, it seems reasonable to postulate that *-kane* is a kind of a core-juncture as a first approximation.

Let us consider the interaction with passive and causative. As far as the passive morpheme -(r)are is concerned, Matsumoto (1996: 187) indicates that the passive can follow *-kane* without any problems, whereas Kageyama (1993: 166) indicates that it is impossible, as shown in the contrast in acceptability below.

- (50) a. Jon wa Biru ni wa but-are-kane-ta
 John Top Bill by Foc beat-Pass-be.reluctant-Past
 ‘John was reluctant to be beaten by Bill.’ (Matsumoto 1996: 187)
- b. * watasi wa sikar-are-kane-ru
 I Top scold-PASS-serve.both.as-NPST
 ‘I am reluctant to be scolded.’ (Kageyama 1993: 166)

I agree with Kageyama’s judgment, and both sentences sound anomalous to me. *-Kane* expresses the cognizer’s inability or unwillingness toward an action over which he or she has control over. In (50), the actors, who have control over the event, are not the

cognizers, but the semantics of *-kane* codes that the cognizers have control over the event, and thus what example (50) expresses is contradictory.

Let us consider the case of -(*s*)*ase*. Recall that verb-(*s*)*ase* ‘causative’ is an instance of nuclear coordination, whereas -(*s*)*ase* ‘jussive’ is an instance of core coordination. The sentence in (51) shows that *-kane* can readily follow -(*s*)*ase* ‘causative’.

- (51) Hanako o Tookyoo made hitoride wa ik-ase-kane-masu
Hanako ACC Tokyo as.far.as alone TOP⁸ go-CAUS-serve.both.as-POLITE
‘I am reluctant to make Hanako go to Tokyo alone.’

The sentence in (52) shows that *-kane* can also follow the jussive sense of -(*s*)*ase*.

- (52) Tookyoo made Hanako ni wa ik-ase-kane-masu
Tokyo as.far.as Hanako DAT TOP go-CAUS-serve.both.as-POLITE
‘I am reluctant to have Hanako go to Tokyo.’

Notice the coding on *Hanako* is distinct in (51) and (52). Example (51) has *o* ACC, indicating that the type of causation is a plain causative. On the other hand, (52) has *ni* DAT, indicating that the type of causation is jussive (see Chapter 4). The point is that *-kane* can occur outside of -(*s*)*ase* ‘jussive’.

I argue that the juncture-nexus type of the verb-*kane* is core cosubordination. Due to its specialized meaning, we are unable to examine its interaction with a deontic modal (a core level operator). *-Kane* inherently bears a deontic sense, and this makes it incompatible to co-occur with another deontic modal within the same sentence. A weak

⁸ The gloss TOP is used for consistency with *wa* TOP. This is clearly a type of a focus marker, since there is narrow focus on *hitoride* ‘alone’ in the sentence in the main text (51), implying that *I am reluctant to make Hanako go to Tokyo alone* but if someone accompanies her, I will not be reluctant. Note also that *wa*-marking appears on the NP in the immediately preverbal position when *-kane* co-occurs with the predicate.

piece of evidence is that *-kane* imposes semantic restrictions on the argument of the other core, which is typical of core cosubordination. Let me elaborate more on this point.

First note that the arguments of the linked core are not the arguments of *-kane* strictly speaking, since *-kane* is nonsensical with the arguments of the base verb, as shown in the contrast in unacceptability in (53).

- (53) a. watasi wa sono koto wa moosi-kane-masu
I TOP that matter FOC say-serve.both.as-POLITE
'I am unwilling to talk about that matter.'
- b. # watasi wa sono koto wa kane-masu
I TOP that matter FOC serve.both.as-POLITE
'I am unwilling about that matter.'

On the other hand, there is a special relationship between *-kane* and the argument of the linked core; namely, *-kane* requires the entity experiencing the inability or difficulty to be identical to the entity performing the action denoted by the linked core. For example, in (54a) below, the person unwilling to go to Tokyo must be *Taro*, and in (54b), the person who is reluctant to say must be the speaker.

- (54) a. Taroo ga Tookyoo e iki-kane-te-i-ru
Taro NOM Tokyo to go- serve.both.as-LINK-exist
'Taro is hesitant to go to Tokyo.'
- b. sore wa mousi-kane-masu
that TOP say-serve.both.as-POLITE
'I am unwilling to say it.'

It is typically the case that the shared entity is human and that *-kane* does not occur with a non-human argument, as shown in (55).

- (55) a. * ame ga huri-kane-te-iru⁹
 rain NOM fall-serve.both.as-LINK-exist
 (intended) 'It is difficult for the rain to fall.'
- b. * happa ga oti-kane-te-iru
 leave NOM fall-serve.both.as-LINK-exist
 (intended) 'It is difficult for the leaves to fall.'

However, *-kane* can occur with an idiomatic expression which takes a body-part-like element, shown in (56).

- (56) a. otoko wa roretu ga
 man TOP manner.of.articulation NOM
 mawari-kane-te-i-ru
 spin-serve.both.as-LINK-exist-NPST
 Lit. 'As for the man, his manner of articulation is not smooth.
 (He is unable to articulate clearly.)'
- b. sono nedan ni wa te ga todoki-kane-masu
 that price to TOP hand NOM reach-serve.both.as -LINK-exist
 Lit. 'It is difficult for my hand to reach the price. (I cannot afford it.)'

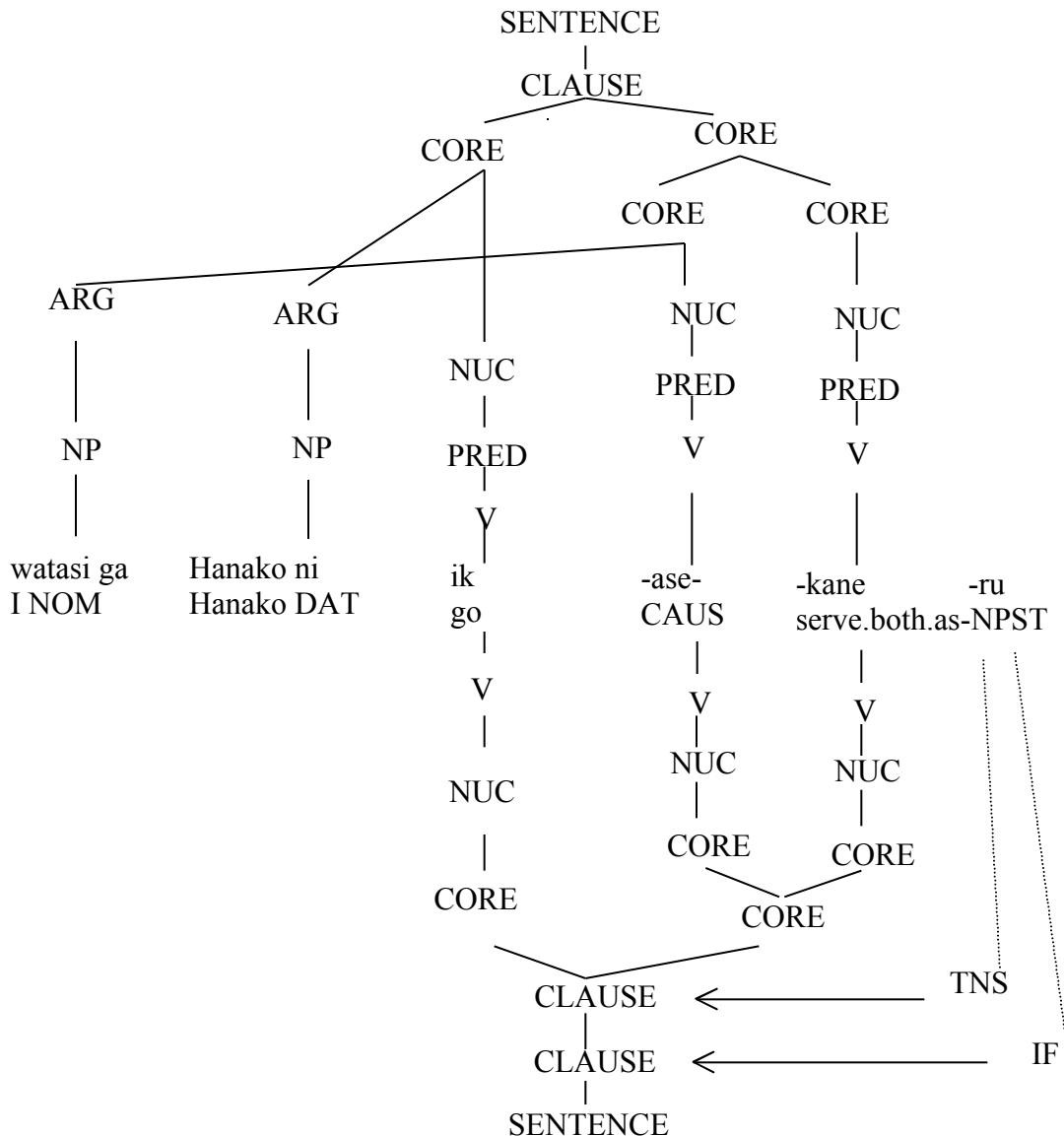
Example (56a) does not contain a body part *per se* but *roretu* 'manner of articulation' can be thought of as a kind of tongue movement. The sentence depicts a condition of the tongue which cannot move smoothly. Similarly, (56b) depicts the blocked movement of the hand used metaphorically. In both cases, *-kane* codes inability.

⁹ The unacceptability of this example cannot be attributed to the presence of *-te-i*. Verb-*kane* must be followed by *te-i* (LINK-exist) when it takes a third person subject, as shown below (-*Te-i* allows the speaker to report the mental state of the third person subject—this is typical of psych verbs in Japanese). The example in (a) shows a plain sentence with a first person subject with *-kane*; and (b) shows that it must take *te-i* (LINK-exist) with a third person subject.

- (a) sono-koto wa handan-si-kane-masu
 that-matter FOC judge-serve.both.as-POLITE
 'It is difficult for me to make judgments on that matter.'
- (b) Taro ga sono-koto o handan-si-kane-te-i-ru (*handan-si-kane-ru)
 Taro NOM that-matter ACCjudge-serve.both.as-LINK-exist
 'It is difficult for Taro to make judgments on that matter.'

The point is that these examples show that *-kane* makes special reference to the argument of the linked core in the sense that the cognizer must have control over the event denoted by the linked core, irrespective of whether the nominative coded argument is human or non-human. Since this is a typical relation found in core cosubordination, I hypothesize that verb-*kane* is an instance of core cosubordination. A simplified version of sentence (52) with jussive -(s)ase is represented in (57). Notice that *-kane* is core coordinated with -(s)ase but not with *-ik* ‘go’.

(57) ‘I am reluctant to have Hanako go (there).’



Furthermore, I propose that the LS of *-kane* is as in (58).

- (58) *-kane*: NOT **able**_ (x, y), where x=cognizer or his/her body part, and y=LS

Matsumoto (1996) classifies *-kane* as a Type III compound, which is subcategorized for EXPERIENCER and EVENT at a-structure and takes SUBJ and XCOMP at f-structure. For Kageyama (1993), *-kane* appears in the Transitive-Complement Structure (i.e., equivalent of the control construction), taking a V_ complement (see section 4.3.2). In both analyses, *-kane* obligatorily takes a subject whose referent is human. Although examples like (56) are not discussed, it is unclear how these sentences are accounted for under their analyses.

RRG posits neither a syntactic level of argument structure nor a particular relation between grammatical relations and argument positions in the syntactic representations. Thus, postulating that the juncture-nexus type of the verb-*kane* is core-cosubordination does not commit to a particular coding property of the NPs involved in the sentence, nor does it require an *ad hoc* treatment regarding the mismatch seen in (56) that the nominative-marked argument is not the human who experiences the difficulty.

5.3.2. *-Kane-nai* ‘might’

We now turn to *-kane*'s NEG-attached form. I argue that (i) *-nai* in *-kane-nai* is not an operator that encodes negation and that (ii) the entire sequence is a collocation, which functions as a clausal operator.

The first point can be illustrated in the example in (59). Specifically, adding *-nai* NEG to V1-*kane* (thus, forming V1-*kane-nai*) does not invert the truth conditions of the proposition expressed by V1-*kane*.

- (59) a. sore wa ii-kane-ru
 that TOP say-serve.both.as-NPST
 ‘That, it is difficult for me to tell you/I am reluctant to tell you.’
- b. sore wa ii-kane-nai
 that TOP say-serve.both.as-NEG
 ‘I am afraid that he may say that.’
 ‘*I am not reluctant tell you.’

Example (59a) shows that *-kane* depicts the speaker's reluctance to tell, while (59b) shows that *-kane-nai* encodes the speaker's negative evaluation about the upcoming event. This contrast illustrates that the proposition of *V1-kane-nai* is not equivalent to $\sim p$ where the proposition of *V1-kane* is *p* (*p* + NEG $\sim p$). Conversely, obliterating *-nai* from the collocation results in a nonsensical sentence, as in (60).

- (60) a. kare nara yari-kane-nai
 he FOC do-serve.both.as-NEG
 ‘I am afraid that he might do it.’
- b. # kare nara yari-kaneru
 he FOC do-serve.both.as
 ‘I am not afraid that he might do it.’
- c. kare wa yari-kane-te-i-ru
 he TOP do-serve.both.as-LINK-exists-NPST
 ‘He is reluctant to do it.’

Example (60a) expresses the speaker's negative evaluation toward the event that 'he' might do it, whereas its minimal pair without *-nai* in (60b) is nonsensical (cf. to express a third person's inability or reluctance, *-te-i-* must be accompanied and *nara* FOC must be changed to *wa* TOP as shown in (60c)). These examples show that *-kane-nai* is not a composite of *-kane* and *-nai* semantically but is a distinct lexical unit.

Let us now turn to the second point. I argue that *-kane-nai* is a clausal operator since it can have scope over a core which is modified by a peripheral adjunct. Consider (61).

(61)	Taroo ga	sotugyoo-go
	Taro NOM	graduation-after
	Amerika ni	it-te-simai-kane-nai
	America to	go-LINK-put-serve.both.as-NEG

'I am afraid that Taro may go to America after graduation (and be gone).'

In (61), *it-te-simaw* 'go-LINK-put(aspect)' constitutes a core, and the temporal adjunct *sotugyoo-go* 'after graduation' in the periphery modifies it. Together they are housed under a clause. *-Kane-nai* has scope over the entire unit, and this is possible only if it is a clausal operator.

Another piece of evidence to support that *-kane-nai* is a clausal operator is that it can only index the speaker's judgment about the event denoted by V1 irrespective of who is involved in the event. If this were a core level operator, it would have to make reference to the argument in the linked core. As shown in (62), regardless of who is involved, it has to be interpreted that the person making the judgment is the speaker.

(62)	a.	karada o	itame-te-simai-kane-nai
		body ACC	hurt-LINK-put-serve.both.as-NEG
	'I am afraid that he may end up hurting his body.'		
	/*He is afraid that he may end up hurting his body.'		

- b. Taroo ga karada o itame-te-simai-kane-nai
Taro NOM body ACC hurt-LINK-put-serve.both.as-NEG
‘I am afraid that Taro may end up hurting his body.
/*Taro is afraid that he may end up hurting his body.’

Moreover, *kane-nai* shares a morphological characteristic with epistemic modals.

Consider the forms of the Japanese epistemic modal for necessity and possibility in (63).

- (63) a. Necessity
inku o kawa-nakerebanaranakat-ta ga
ink ACC buy-must(epistemic)-PST but

tomodati ni morat-ta node
friend DAT receive-PST because

kawa-naku-te-mo yoku-nat-ta
buy-NEG-LINK-FOCgood-become-PST

‘I needed to buy ink, but since I got some from my friend,
it turned out that I didn’t have to buy any.

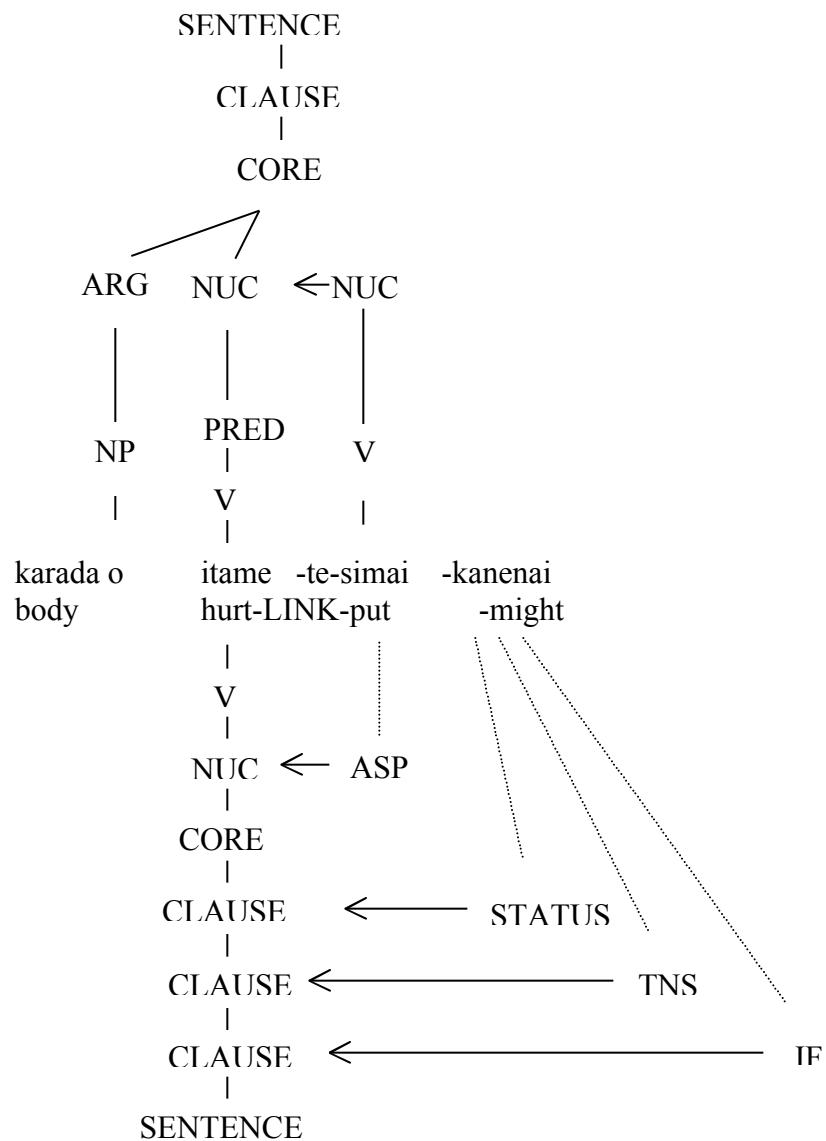
b. Possibility
ame ga huru-kamosirenai
rain NOM fall-probable
‘It might rain. (It is possible that it will rain.)

Example (63a) contains *-nakerebanaranai*, which is a collocation of *nakere* NEG (hypothetical form), *ba* CONJ¹⁰, *nara* ‘become (irrealis form)’ and *nai* NEG. Example (63b) contains *kamosirenai* which consists of *kamo* ‘probable’, *sire-* ‘be known’, and *nai*, NEG. This shows that *-kane-nai* and the Japanese epistemic modal are analogous both formally (having NEG at the end) and semantically (coding the existential status of the event denoted by V1).

Given the discussion above, I propose that *-kane-nai* is a clausal operator, coding a type of epistemic modality. A structural representation is shown in (64).

¹⁰ See Ohori (1992) for the analysis of *ba*.

(64) 'I am afraid that you may end up hurting your body.'



5.3.3. -E ‘be possible’

There is another V2 morpheme that expresses a similar semantic content as

-kane-nai, which is *-e/ (~u/)*¹¹. It means ‘to obtain’ as an independent verb in (64a),

while it means ‘be possible’ as a V2 in (64b).

- | | | |
|---------|--|-----------------------------|
| (64) a. | otoko wa meesee to tomi o | e-ta |
| | man TOP fame and fortune ACC | obtain-PST |
| | ‘The man obtained fame and fortune.’ | |
| b. | asita osi-tubus-are-ru | zitai mo okori-u(/e)ru |
| | tomorrow push-crush-PASS-NPST | situation FOC happen-obtain |
| | ‘Even a situation that we would be crushed tomorrow could happen.’ | |

The compounds in (65) exemplify more V1s that can occur with *-e*.

- | | | | |
|---------|----------------|------------------|-----------------------------|
| (65) a. | nari-uru | become- | ‘He could become one.’ |
| b. | kati-uru | win- | ‘He could win.’ |
| c. | kyuumee-si-uru | save one’s life- | ‘We could save his life.’ |
| d. | ari-uru | exist- | ‘It is possible to happen.’ |

-E has some unique characteristics. First, like *-kane* ‘serve both as (unable)’, *-e* is typically used in formal speech or a formal style of writing. Second, it can refer only to the future possible occurrence of an event, and when occurring as a matrix predicate, it takes only the non-past form (e.g., *ari-e-ru* exist-obtain-NPST ‘It is possible that it happens.’), but not the past form (**ari-e-ta* exist-obtain-PST). Third, like *-kane-nai*

¹¹ The morpheme *-e-* is homophonous with *-e-* which marks ability, shown in (a).

(a) Hanako wa oyog-e-ru
Hanako TOP swim-able-NPST
‘Hanako can swim.’

The *-e-* of ability has an allomorph *-rare*, and affixes directly to the root. On the other hand, the *-e* (*~u*) in question here is linked to the *renyookee* ‘linking form’ which has an additional vowel sound *-i* for a consonant ending root or *-Ø* for a vowel ending root, as shown in (b). The distribution of *-e* and *-u* seems phonologically conditioned to a certain degree but it is not clear (*-u* is the form used in Old Japanese). In some cases, they are completely interchangeable.

(b) consonant-ending: kak-e-ru ‘can write’ kaki-e(~u)-ru ‘It is possible that he would write.’
vowel-ending: tabe-rare-ru ‘can eat’ tabe-u-ru ‘It is possible that he would eat it.’

‘might’, it typically occurs with a focus particle such as *nara* as in (66b), or a clause expressing a hypothetical condition, such as (66c).

- (66) a. kare nara yari-kanenai
he FOC do-might
‘I am afraid that he might do it.’
- b. kare nara yari-u-ru
he FOC do-obtain-NPST
‘It is possible that he will do it.’
- c. asu ni nare-ba yootai ga
tomorrow DAT become-when/if condition NOM
kawaru koto mo ari-u-ru
change-event FOC exist-obtain-NPST
‘It is possible for a situation to hold in which his condition changes when tomorrow comes.’

Thus, in terms of the meaning, *-e* is almost like an epistemic modal which expresses possibility.

The question now is the juncture-nexus type of *-e*. As a first approximation, we may posit that *-e* is a clausal operator coding epistemic modal (of possibility), like *-kane-nai* ‘might’. One argument against this position is that *-e* does not parallel the typical formal characteristic of the epistemic modal category in Japanese, namely that that it takes NEG as part of its form (cf. *ni tigainai* ‘must’ (necessity); *kamosirenai* ‘might’(possibility)). If *-e* occurs with NEG, *-e-nai*, it simply negates the possibility of occurrence of V1, as in (67).

- (67) osi-tubus-are-ru zitai wa okori-e-nai
push-crush-PASS-NPST situation FOC happen-obtain-NEG
‘It is not possible for a situation in which we would be crushed to happen.’

Since *-e* has a full-fledged use as a verb meaning ‘obtain’, it seems more appropriate to analyze this as a type of juncture. The level must be core or looser (see the hierarchy of the juncture-nexus types, (4) in Chapter 2), given that it can follow the direct passive, as shown in (68).

- (68) kono tyoosi nara ziken mo kaiketu-sare-u(/e)-ru
 this condition if case FOC solution-PASS-obtain-NPST
 ‘(If they proceed) in this condition, it is possible for the case to be solved.’

-E can also follow *-(s)ase*, as shown in (69).

- (69) a. Taroo nara Hanako o Tookyoo made ik-ase-u-ru
 Taro FOC Hanako ACC Tokyo as.far.as go-CAUS-obtain-NPST
 ‘It is possible for Taro to make Hanako go to Tokyo.’
- b. Taroo nara Hanako ni Tookyoo made ik-ase-u-ru
 Taro FOC Hanako DAT Tokyo as.far.as go-CAUS-obtain-NPST
 ‘It is possible for Taro to have Hanako go to Tokyo.’

Sentence (69a) is an example of ‘causative’ *-(s)ase* (nuclear coordination), whereas (69b) is an example of ‘jussive’ *-(s)ase* (core coordination). The former example describes the possibility of *Taro*’s performing an action in which *Hanako*’s reaching Tokyo is realized. On the other hand, the latter example describes only the possibility of *Taro*’s giving a command to *Hanako*, which indicates that the scope of *-e* is over a single core (which houses *-(s)ase*), but not across two cores.

Given that *-e* does not share arguments with the linked core, verb-*e* must be an instance of core subordination. I propose that it has the LS of (70).

- (70) *-e* (~*u*): **possible’** (*x*), where *x* is LS

5.4. Summary

This chapter examined the juncture-nexus type as well as the LS of the non-phase V2s. It was argued that they are all core-level juncture, except for *-kane-nai*. The representations in (71) provide a summary.

(71) Core cosubordination:

- a. *-nare* ‘become used to’
 BECOME **used.to_** (x, y), where y=LS
- b. *-kane* ‘serve both as (unable)’
 NOT **able_** (x, y), where x=cognizer or his/her body part, and y=LS

Core subordination:

- c. *-sugi* ‘excessively’
 be_ (x, [excessive_])

where x=LS, and the LS must contain a scalar element.

- d. *-e(~u)* ‘possible’
 possible_ (x), where x is LS

Clausal operator:

- e. *-kane-nai* ‘might’

CHAPTER 6

Phase Verbs

The goals of this chapter are (i) to observe the semantic characteristics of phase verbs and (ii) to examine their juncture-nexus types. The V2s that fall into the category of Japanese phase verbs are: *-hazime* ‘begin’; *-das* ‘let exit (begin)’; *-tuzuke* ‘continue’; *-kakar_{intran}* ‘hook (be about to)’; *-kake_{tran}* ‘hook (be about to)’; *-owar* ‘finish_{intran}’ and *-owe* ‘finish_{tran}’. Japanese phase verbs exhibit several asymmetric characteristics. First, despite the fact that they all have morphologically-related intransitive-transitive pairs, not all function as phase verbs (e.g., *-das* ‘let exit (begin)’ has an intransitive counterpart *-de* ‘exit’, but only the transitive form functions as a phase verb). Second, some of the phase verbs maintain their main sense as a lexical verb in the compound (e.g., *-tuzuke* ‘continue’ means to ‘continue’ as an independent verb), whereas others bear a bleached meaning in the compound (e.g., *-das* ‘let exit (begin)'). Third, the transitive forms are often associated with agency but having the transitive form does not necessarily entail that the compound requires an agent as its argument. For example, *-kake_{tran}* ‘hook (be about to)’ can be readily compounded with a non-agent argument like *hi* ‘fire’ as in (1).

- (1) hi ga kie-kake-ta
 fire NOM go.out-hook(be.about.to)-PST
 ‘The fire is about to go out.’

The ground work on Japanese phase verbs goes back to Shibatani (1973a), who proposed that Japanese aspectual verbs (i.e., phase verbs) underlyingly appear in two distinct types of structures, intransitive and transitive (see Chapter 4). The two structures are later characterized in terms of raising and control, and this distinction has been adopted in various works (e.g., Kuno 1987; Sells and Iida 1991; Kageyama 1993, Nishigauchi 1993; Matsumoto 1992, 1996). This chapter presents an alternative analysis. I propose that phase verbs fall into two types of structures: core subordination and nuclear cosubordination. I will also argue *-owar* ‘finish_{intr}’ and *-owe* ‘finish_{tran}’ belong to a single structural type, not two types as has been proposed in previous analyses. This chapter proceeds as follows: Section 6.1 discusses aspectual phases. Section 6.2 and Section 6.3 examine the verbs that mark the inceptive phase. Section 6.4 discusses the verbs that mark the middle phase, and Section 6.5, the final phase. Section 6.6 discusses the verbs that mark the phase prior to the onset of an atelic phase. Section 6.7 presents a summary of the findings.

6.1. Aspectual phases

Freed (1979) decomposes an event into three temporal segments: an ONSET, a NUCLEUS, and a CODA. NUCLEUS is further divided into INITIAL, MIDDLE, and FINAL. Since the first two terms have been used in another sense already, namely, ‘onset’ is used to denote the starting point, and NUCLEUS in RRG refers to a syntactic unit, I will rename them as ‘PREINCEPTIVE’, following Binnick (1991), and ‘MAIN EVENT’ respectively. I will call the INITIAL as INCEPTIVE in order to be consistent

with PRE-INCEPTIVE. With these modifications, a general schema of the internal phases of an event can be presented as in Figure 6.1.

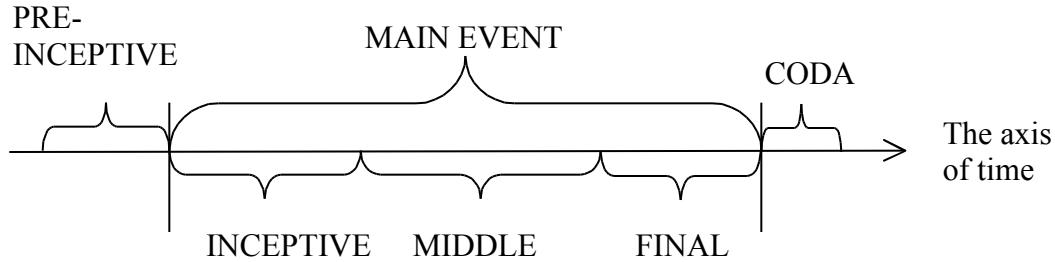


Figure 6.1: The internal phases of an event

The PREINCEPTIVE is the temporal segment where the event has not completely started yet but may imminently be starting. For example, the sensation experienced prior to sneezing would take place during the preinceptive phase of sneezing, or if someone reaches his hand to open the door but then did something else, this action takes place during the preinceptive phase of opening the door. Recognition of this phase becomes crucial in understanding the meaning of *-kake* ‘hook (be about to)’. The MAIN EVENT is the ‘in progress’ phase of the eventuality, which can be further divided into: INCEPTIVE, MIDDLE, and FINAL. According to Freed (1979), the INCEPTIVE phase is not qualitatively distinct from the rest of the phases. If the event has already set in at this phase but was interrupted, then it is truthful to state that the event was in progress. This contrasts with PREINCEPTIVE, where cancellation of the event at the PREINCEPTIVE phase does not entail that the event was in progress. The MIDDLE and FINAL phases are the phases past the INCEPTIVE phase. The CODA can be thought of as the post-event phase. In the event of closing a door, for example, the phase where the

door is completely shut and the phase where someone's hand is leaving the doorknob would be CODA.

If we take an event of *walking* as an example, (2) shows the distribution of the phase verbs, indicating which phase they depict.

- (2) a. Pre-inceptive : *-kakar*_{intran}/-*kake*_{tran} ‘hook (be about to)’
b. Inceptive : *-hazime* ‘begin’; *-das* ‘let exit (begin)’
c. Middle : *-tuzuke* ‘continue’
d. Final (active accomplishment use only):
 -*owar* ‘finish_{intran}’ and -*owe* ‘finish_{tran}’
e. Coda : Ø

The phase to which a particular phase verb makes reference depends on the lexical aspect of the base verb. However, we can point out at this point that there is no compound verb that marks the phase of CODA in Japanese, regardless of the lexical aspect of the base verb, though the resultative reading obtained with a telic verb combined with *-te-i-* may be considered as CODA.

6.2. Inceptive phase (I): *-hazime* ‘begin’

6.2.1. Introduction

This section argues that *-hazime* ‘begin’ takes two juncture-nexus types. The distinction is necessary in order to capture *-hazime*’s behaviors with direct passive, shown in (3).

- (3) a. itigo ga tumi-hazime-rare-ta [nuclear cosubordination]
strawberry NOM pick.up-begin-PASS-PST
Lit. 'The strawberries were begun to be picked up.'

- b. itigo ga tum-are-hazime-ta [core subordination]
strawberry NOM pick.up-PASS-begin-PST
‘The strawberries began to be picked up.’

Notice the position of the passive morpheme *-(r)are*. In (3a), it is on the verb *-hazime* ‘begin’ following the entire compound, whereas in (3b), it is on the V1, and *-hazime* ‘begin’ follows *-(r)are* ‘passive’. Example (3a) focuses on people’s initiation of picking up strawberries (i.e., it expresses a scene where people in one farm began to pick up strawberries). Example (3b) expresses that the custom of strawberries being picked up started (i.e., an event of strawberries being picked up started in various farms).

The ability to take the passive morpheme *-(r)are* entails that the preceding unit belongs to a single core, since the function of *-(r)are* is to alter the assignment of case marking of the arguments that belong to a core. Hence, in (3a), the entire sequence of V1-*hazime* belongs to the core, whereas in (3b), V1+*(r)are* belongs to a core which is distinct from the core that houses *-hazime* ‘begin’. This shows that *-hazime* must appear in two distinct juncture levels. I propose that (3a) and (3b) take the structure of nuclear cosubordination and core subordination respectively, which will be labeled as: as *-hazime*_{NUC} and *-hazime*_{CORE}. Before we discuss why these specific structures are posited, we first consider the semantic difference between *-hazime*_{NUC} and *-hazime*_{CORE}.

6.2.2. Meaning of *-hazime*_{NUC} and *-hazime*_{CORE}

The semantic difference of *-hazime*_{NUC} and *-hazime*_{CORE} can be best captured by comparing the differences of the two lexical verbs *hazime-* ‘begin_{tran}’ and *hazimar-* ‘begin_{intran}’. *Hazime-* ‘to begin’ is a transitive verb which has a morphologically related intransitive counterpart *hazimar-* ‘begin_{intran}’ shown in (4).

- (4) a. zyugyoo ga hazimat-ta
 class NOM begin_{intran}-PST
 ‘The class began.’
- b. geemu ga hazimat-ta
 game NOM begin_{intran}-PST
 ‘The game began.’
- c. sensee ga zyugyoo o hazime-ta
 teacher NOM class ACC begin_{tran}-PST
 ‘The teacher began his class.’
- d. sakki geemu o hazime-ta
 just.now game ACC begin_{tran}-PST
 ‘We started the game just now.’

Both forms are constrained semantically as to what noun it can co-occur with, as shown in (5).

- (5) a. * hon(/ringo) ga hazimat-ta
 book(/apple) NOM begin_{intran}-PST
 ‘The book started./The apple started.’
- b. * hon(/ringo) o hazime-ta
 book(/apple) ACC begin_{tran}-PST
 ‘I started the book(/apple).’

Hazimat- and *hazime-* must occur with an NP that involves some kind of activity, as in (4). This point is supported by the fact that they create unacceptable sentences when they occur with an NP that lacks such a property, as in (5). This is analogous to the requirement of English *begin*. Van Valin and LaPolla (1997:184-186) note that English *begin* is “like a complement-taking predicate with an unspecified complement verb” and that the unspecified information is filled by the semantics of the noun it co-occurs with. They offer an account based on the theory of nominal qualia proposed by Pustejovsky (1991, 1995). For a sentence like:

- (6) John started in on a new novel

(which can mean that he began to either *read* or *write* a novel), Van Valin and LaPolla propose the logical structure of (7), to account for the two readings.

- (7) BECOME **do**_₁ ([John (x), {...}], [verb_([John (x), {...}],
[novel (y), { ..., QT [do_1(x, [read_(x, y)])], QA [do_1(x, [write_(x, y)])]}])])

The *read* reading is supplied by the *telic role* of the nominal represented as QT and the *write* reading is supplied by the *agentive role* represented as QA (for details, see Van Valin and LaPolla (1997) and Pustejovsky (1991, 1995)).

Japanese *hazimar-/hazime-* ‘begin’ bears an analogous property to English *begin*. I hypothesize that both forms must occur with a noun with qualia which involve an activity component, and furthermore, that the referent of the nominative-marked argument of the transitive form must be [+human]¹². This is because *hazime-* ‘begin_{tran}’ is concerned with a deliberate initiation of an activity by a human, while *hazimar-* ‘begin_{intr}’ depicts the happening of an event which is at its inceptive phase. Naturally, the transitive form can co-occur with an adverb like *wazato* ‘deliberately’, as in (8a) but not the intransitive form, as in (8b).

- (8) a. sensee ga zyugyoo o wazato hayaku hazime-ta
teacher NOM class ACC deliberately early begin_{tran}-PST
‘The teacher deliberately began the class earlier.’
- b. * zyugyoo ga wazato hayaku hazimat-ta
class NOM deliberately early begin_{intr}-PST
‘The class began earlier deliberately.’

The morphological distinction of these two verbs is further assumed to represent the speaker’s choice of the form. Namely, the speaker selects the transitive form when she wishes to place the initiator of the activity at the center of attention, while the intransitive

¹² I use ‘human’ here but intend to include other animates which are capable of performing the intentional acts denoted by V1 in the compound.

form is selected when the situation as a whole is placed at the center of attention. Let us call this distinction, the **agent-foregrounding option** and the **situation-foregrounding option** respectively.

I hypothesize that the difference between the two structural types (*-hazime_{NUC}* and *-hazime_{CORE}*) parallels the distinction of two lexical verbs *hazime-* ‘begin_{tran}’ and *hazimar-* ‘begin_{intran}’ respectively. First, *hazime_{NUC}* is used as the agent-foregrounding option, and *hazime_{CORE}* is used as the situation-foregrounding option. Second, *hazime_{NUC}* is a two-place predicate whose *x* argument is an agent, whereas *hazime_{CORE}* is a one-place predicate which does not require an agent. This follows from the meaning of two *-hazimes* informally presented in (9).

- (9) a. *-hazime_{NUC}* : There is an *x* and a *y*, such that *x* is a human *y* is an activity, and *x* intentionally initiates *y*.
- b. *-hazime_{CORE}* : There is an *x* such that *x* is a situation, and the happening of *x* is at the inceptive phase.

Given (9), the LS of *-hazime_{NUC}* and *-hazime_{CORE}* can be proposed as (10):

- (10) a. *-hazime_{NUC}* : (DO (x, [BECOME **do**_{_} (x, [...])]))
where the LS of V1 contains **do**_{_} (x, Ø), *x*=agent
- b. *-hazime_{CORE}* : BECOME **happen**_{_} (x), where *x* is an LS

The representation of (10a) follows Van Valin and LaPolla’s (1997: 186) representation of English *begin*. The element BECOME encodes a change over time. When it is combined with an activity predicate, it indicates that settling into the inceptive phase of the activity happened over time. Unlike the case of English *begin*, DO is obligatory in Japanese (cf. Hasegawa 1996), since its independent verb counterpart *hazime-* must be lexicalized with agency (recall that it occurs with an adverb like *wazato* ‘intentionally’).

Thus, these pieces together translate as ‘*x* intentionally initiates an activity and the initiation takes over time.’ In contrast, the logical structure of (10b) is to capture that *-hazime_{CORE}* takes the entire situation in its scope and marks the inceptive phase. The element BECOME is to indicate that the settling into the situation takes place over time. As we discuss in the next section, the LS of *-das* ‘let exit (begin)’ consists of INGR instead, which indicates that the settling into the situation takes place punctually.

Lastly, *-hazime_{NUC}* and *-hazime_{CORE}* impose semantic restrictions on the co-occurring V1 in an analogous fashion as the lexical verbs do on the co-occurring arguments but not in precisely the same manner. Let us consider what predicate type can be combined with the logical structures in (10).

In the case of *-hazime_{NUC}*, there are two key components: DO, representing agency, and **do_**(*x*, [...]), representing an activity. For a V1 to be successfully combined with *-hazime_{NUC}*, then, the LS of V1 has to include a component **do_**(*x*, [...]), where *x*=agent. The Aktionsart classes that fulfill these requirements are activity, active accomplishment, and causative classes whose actors are agents. Conversely, these requirements precludes the classes of state, achievement, or the predicate with [-agent] argument from being combined with *-hazime_{NUC}*. A few examples of unacceptable cases are shown below.

- (11) a. Achievement
 # Taroo ga sin-i-hazime-ta
 Taro NOM die-begin-PST
 (intended) ‘Taro initiated the act of dying.’
- b. Activity *x*=[-human]
 # ame ga huri-hazime-ta
 rain NOM fall-begin-PST
 ‘The rain initiated the act of falling.’
 (OK under the reading ‘It started to rain.’)

The following examples show a case of successful combination.

(12) Activity

- a. kodomo ga utai-hazime-ta
 child NOM sing-begin-PST
 ‘The child initiated the act of singing.’

- b. {DO (x, [BECOME **do_** (x, [...])])} +
 {[**do_** (x, [**sing_** (x)])}
 →DO (x, [BECOME **do_** (x, [**sing_** (x)])])

(13) Causative accomplishment

- a. Hanako ga tyokoreeto o tokasi-hazime-ta
 Hanako NOM chocolate ACC melt-begin-PST
 ‘Hanako started melting the chocolate
 (initiated the act of melting the chocolate).’
- b. {DO (x, [BECOME **do_** (x, [...])])} +
 {[**do_** (x, Ø)] CAUSE [BECOME **melted_** (y)]}
 →[DO (x, [BECOME **do_** (x, Ø)])] CAUSE [BECOME **melted_** (y)]

Notice that the LS for V1 is not simply embedded into the LS of *-hazime* in (13b); in other words, the scope of BECOME is only on the activity component. This kind of relationship is consistent with the formation of complex predicate at the nuclear-level juncture in that the argument structures of the two predicates are merged into one, rather than the sharing relation of the arguments of separate cores, which is typical with the core level juncture.

-Hazime_{CORE}, on the other hand, does not require V1 to contain **do_** (x, [...]) as a component, unlike the restriction imposed by the lexical verb *hazimar-* ‘begin_{intran}’ on the co-occurring noun. As shown in (14), *-hazime_{CORE}* is free to co-occur with a class without **do_** (x, [...]), such as achievement or accomplishment.

(14) Achievement [INGR **pred**_ (x)] (telic)

- a. happa ga oti-hazime-ta
leave NOM fall-begin-PST
'Leaves started to fall.'

- b. Accomplishment [BECOME **pred**_ (x)] (telic)
yasai ga kusari-hazime-ta
vegetable NOM get.rotten-begin-PST
'Vegetables started to get rotten.'

Notice that the NOM-marked arguments are plural as indicated by English translation.

This indicates that *-hazime_{CORE}* marks the inceptive phase of a sequence of the iterated telic events (achievement or accomplishment).

When *-hazime* occurs with an accomplishment, the inceptive phase of the process can be referred to. This type of example is noticed in Kuwahara (1999: 3), as in (15).

- (15) mizu wa sude-nisakana no ti de nigori-hazime-te-i-ta
water TOP alreadyfish of blood by become.turbid-begin-LINK-exist-PST
'The water has already become turbid by the blood of the fish.'

This context indicates that the fish is bleeding and the blood is gradually changing the clearness of the water. Though the water has not completely become turbid, it is the case that it has already set in the phase of becoming turbid.

The class of state seems to be the only class which is incompatible with *-hazime_{CORE}*, as shown in (16).

- (16) a. *hon ga ari-hazime-ta
book NOM exist-begin-PST
'Books started to exist.'

b. * okane ga iri-hazime-ta
money NOM need-begin-PST
'Money started to be needed.'

Then, it must be the case that the semantic requirement of *-hazime_{CORE}* is [-state]. When it occurs with a class which has an activity component, it marks the inceptive phase of the activity. When it occurs with a telic verb, the interpretation of which specific phase it marks is determined by the other information within the sentence, such as plurality of the argument.

Given the discussion above, the distinction between *-hazime_{NUC}* and *-hazime_{CORE}* can be summarized as in (17).

(17) The distinction of the two *-hazimes*

- a. **Agent-foregrounding option:**
 $\text{-hazime}_{\text{NUC}}$: (DO (x, [BECOME **do**_ (x, [...]], where the LS of V1 contains **do**_ (x, Ø), x=agent
- b. **Situation-foregrounding option:**
 $\text{-hazime}_{\text{CORE}}$: BECOME **happen**_ (x), where x is an LS, x=[-state]

In short, *-hazime* falls into two juncture types: nuclear and core. This distinction is necessary to capture *-hazime*'s interactions with -(r)are PASS (see (3) of this chapter).

-Hazime_{NUC} denotes an event of intentional initiation by an agent, and requires the event denoted by V1 to contain the initiator of the action which can function as the argument of DO. On the other hand, *-hazime_{CORE}* depicts the inceptive phase of a non-static event, which is depicted holistically without focusing on particular participants of the event.

6.2.3. The juncture-nexus type of *-hazime_{NUC}* and *-hazime_{CORE}*

Having observed the semantic difference, this subsection turns to the examination of the juncture-nexus types of *-hazime_{NUC}* and *-hazime_{CORE}*. We begin with *-hazime_{CORE}*.

6.2.3.1. *-Hazime_{CORE}*

The case of *-hazime_{CORE}* is straightforward. V1 and *-hazime* must form core subordination since the two cores cannot be characterized in terms of argument-sharing. As shown in the unacceptability of (18b), the argument of V1 *ame* ‘rain’ alone is not an argument of *-hazime_{CORE}*.

- (18) a. ame ga huri-hazime-ta
rain NOM fall-begin-PST
‘It started to rain.’
- b. * ame ga hazime-ta
rain NOM begin-PST
‘The rain began.’

Semantically, *-hazime* is a one-place predicate *BECOME happen_{_}(x)*, and this representation is consistent with the syntactic relation of the two cores in the core subordination.

6.2.3.2. *-Hazime_{NUC}*

It was mentioned earlier that the entire compound with *-hazime_{NUC}* belongs to a single core because the passive morpheme can follow it (V1-V2-(r)are). Note that this does not specify the composition of the core *per se*. A single core may contain a single nucleus or multiple nuclei. A morphologically complex form like V1-V2 can appear in four possibilities: a lexical compound (housed under a single nucleus), nuclear cosubordination, nuclear subordination, or nuclear coordination.

The formation of *V1-hazime* cannot be lexical for three reasons. First, adding *-hazime* to V1 does not change the meaning of V1. In (19) through (21), the meaning of V1 is unaffected in the compound.

- (19) Taroo ga utai-hazime-ta
 Taro NOM sing-begin-PST
 ‘Taro began singing.’
- (20) Taroo ga koori o tokasi-hazime-ta
 Taro NOM ice ACC melt-begin-PST
 ‘Taro began melting the ice.’
- (21) Taroo ga booru o otosi-hazime-ta
 Taro NOM ball ACC drop-begin-PST
 ‘Taro began dropping balls.’

Second, the actor-undergoer assignment of the arguments is unaffected. Since both V1 and *hazime* contain **do**_{_}(*x*, [...]), this *x* argument is necessarily selected as the actor, and the other argument, if any, is selected as the undergoer, following the actor-undergoer hierarchy. Third, *-hazime* can be combined with virtually any V1, as long as it satisfies the semantic requirement of *-hazime*. This is true irrespective of V1’s transitivity; namely, *-hazime* can occur either with an intransitive (e.g., (19)) or a transitive verb (e.g., (20) and (21)).

Of the three juncture-nexus type, the possibility of nuclear subordination can be first eliminated. Subordination at the nuclear level must mean that *-hazime* functions as a modifier to V1. This cannot be the case since *-hazime* functions as a full lexical verb contributing an argument. Of the choice between nuclear cosubordination and coordination, if a nuclear operator can intervene between the two verbs, we can conclude that V-*hazime* is the case of nuclear coordination. However, due to the morphological fact that no element can intervene between the base verb and *hazime*, whether V1 can take its own operator cannot be demonstrated.

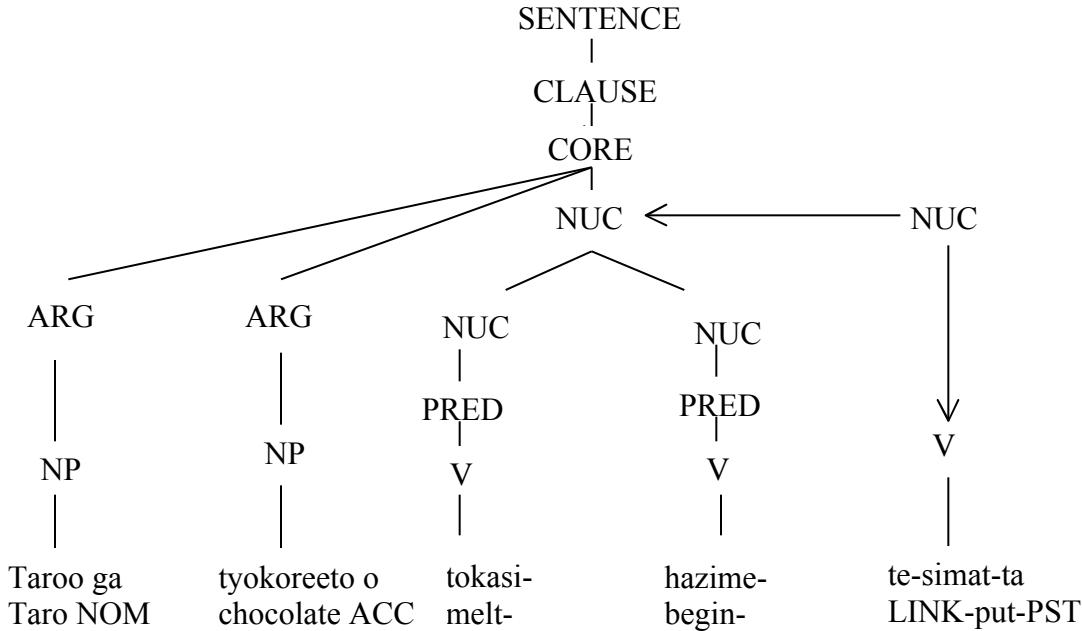
Recall that *-te-simaw* (LINK-put) marks perfective aspect, which is a nuclear operator (Hasegawa 1996). When *-te-simaw* occurs with V-*hazime_{NUC}*, the scope of the nuclear operator is on both nuclei as shown in (22b).

- (22) a. Taroo ga tyokoreeto o tokasi-hazime-te-simat-ta
 Taro NOM chocolate ACC melt-begin-LINK-put-PST
 b. ‘Taro has (already) begun melting the chocolate.’
 c. *‘Taro melted the chocolate and has (already) begun.’

In (22a), what *Taro* has completed is the action of ‘beginning to melt the chocolate’ and cannot leave out the melting action as indicated by the unacceptable reading in (22c).

Accordingly, this example indicates that the structure of V-*hazime_{NUC}* must be a nuclear cosubordination, as represented in (22d).

- (22d) ‘Taro has begun melting the chocolate.’



To sum up, this section discussed the meaning and the structure of *-hazime*. The discussion in this section corroborates Shibatani’s (1973a) original proposal in that Japanese *-hazime* takes two distinct structures. In RRG terms, the two structures

correspond to nuclear cosubordination and core subordination. It was also observed that the two *hazimes* behave analogously to the two lexical verbs *hazimar* and *hazime*, generally speaking. The specific constraints we observed were: *-hazime_{CORE}* requires V1 to be [-static] and that *-hazime_{NUC}* requires V1 to posses the component of **do_**(x, [...]) where x=agent.

6.3. Inceptive phase (II): *-das* ‘begin’

There is one more V2 that marks the inceptive phase of an event, which is *-das* ‘begin’. *Das-* means to ‘let out’ as an independent verb, as in (23a). As V2, there are cases where it has the ‘let out’ sense as in (23b), and the ‘begin’ sense as in (23c).

- (23) a. mado kara kubi o dasi-ta
 window from neck ACC let.out-PST
 ‘He stuck his head out of the window.’
- b. tyuubu kara hamigaki o sibori-dasi-ta
 tube from toothpaste ACC squeeze-let.exit-PST
 ‘I squeezed toothpaste out of a tube.’
- c. akanboo ga naki-dasi-ta
 baby NOM cry-let.exit-PST
 ‘The baby started (burst out) crying.’

The meaning we are concerned with here is the ‘begin’ sense in (23c).

The syntactic behavior of this verb parallels that of *-hazime_{CORE}* in that: (i) the passive morpheme can intervene between the base verb and *-das* ‘begin’ as shown in (24a); and (ii) verb-*das* involves no argument-sharing. The arguments of the clause belong to the arguments of V1 as shown in the acceptability of (24c) and do not belong to the arguments of V2 as shown in the unacceptability of (24d).

- (24) a. kyuuni uwasa-s-are-dasi-ta
 suddenly rumor-do-PASS-let.out(begin)-PST
 ‘Suddenly, she started to be talked about.’
- b. kyuuni minna ga kanozyo no koto o
 suddenly everyone NOM she of event ACC
 uwasa-si-dasi-ta
 rumor-do-let.out(begin)-PST
 ‘Suddenly, everyone started to gossip about her.’
- c. minna ga kanozyo no koto o uwasa-si-ta
 everyone NOM she of event ACC rumor-do--PST
 ‘Everyone gossiped about her.’
- d. * minna ga kanozyo no koto o dasi-ta
 everyone NOM she of event ACC let.out-PST
 ‘Everyone let her out.’

From these points, it can be concluded that the juncture-nexus type of the verb-*das* is also an instance of core subordination, analogous to *-hazime_{CORE}*.

Though *-das* and *-hazime_{CORE}* take the same juncture-nexus type, they differ in their semantics. Himeno (1977, 1999) discusses the differences in detail. In essence, it can be summarized as follows: *-das* depicts an abrupt or a sudden occurrence of an event, while *-hazime* does not. Typically, *-das* refers to an abrupt release of accumulated force or energy in a large quantity, which can be seen in an event like *hur-* ‘(rain) falls’ and *nak-* ‘cry’, as shown in (25) and (26).

- (25) a. kyuuni ame ga huri-dasi-ta
 suddenly rain NOM fall-let.out-PST
 ‘(Suddenly,) it started raining (downpour).’
- b. ame ga huri-hazime-ta
 rain NOM fall-begin-PST
 ‘It started raining.’

- (26) a. kyuuni akanboo ga naki-dasi-ta
 suddenly baby NOM cry-let.out-PST
 ‘Suddenly, the baby burst out crying.’
- b. akanboo ga naki-hazime-ta
 baby NOM cry-begin-PST
 ‘The baby started crying.’

The sentence in (25a) describes a scene where a fair amount of rain suddenly started to pour, in contrast to (25b), where it could be drizzling. The sentence in (26a) describes a scene where the baby suddenly started to cry loudly and intensively, but with *-hazime* in (26b) the degree of intensity of the cry is unspecified. Thus, as far as temporal duration is concerned, the fundamental difference is that *-hazime* allows a temporal span (or is neutral) for the realization of the event, while *-das* depicts the on-the-dot realization of the event.

Given this, the lexical entry in (27) can be proposed for *-das*. The element INGR indicates that the coming into existence of the event takes place punctually.

- (27) *-das*: INGR **happen_**(x), where *x* is an LS [x=-static]

In sum, the inceptive phase of an event can be expressed by two V2s in Japanese, *-hazime_{CORE}* and *-das_{CORE}*. They mark different temporal dimensions on the coming into existence of the event; namely duratively or punctually. The agent-directed initiation of an event can also be expressed in Japanese, but this is done only by *-hazime_{NUC}*. This seems reasonable since *das-* bears no sense of inception as an independent verb.

6.4. Middle phase: *-tuzuke* ‘continue_{tran}’

The middle phase of an event is expressed by *-tuzuke* ‘continue_{tran}’.¹³ The examples in (28) and (29) show that this verb means to ‘continue’ both as an independent verb and as a V2.

- (28) sensee ga koogi o tuzuke-ta
teacher NOM lecture ACC continue-PST
'The teacher continued the lecture.'
- (29) sensee wa nihongo o osie-tuzuke-ta
teacher TOP Japanese ACCteach-continue-PST
'The teacher continued to teach Japanese.'

-Tuzuke is analogous to *-hazime* in that it takes two juncture-nexus types, nuclear cosubordination (*-tuzuke_{NUC}*) and core subordination (*-tuzuke_{CORE}*). Furthermore, the former denotes the agent-directed action of continuation, whereas the latter marks the continuous phase of a situation.

-Tuzuke_{CORE}'s structural characteristics follow *-hazime_{CORE}*'s. *-Tuzuke_{CORE}* can take the passive morpheme as in (30a); it can take a non-human argument, as in (30b) and (30c).

- (30) a. itigo ga tum-are-tuzuke-ta [core subordination]
strawberry NOM pick.up-PASS-begin-PST
'The strawberries have been picked up continuously.'
- b. hurassyu ga hikari-tuzuke-ta
flashlight NOM glitter-continue-PST
'The flashlights glittered continuously.' (Text: Kita)

¹³ As a lexical verb, *tuzuke-* (transitive) has a morphologically related intransitive counterpart *-tuzuk* ‘continue’. This intransitive verb also functions as V2. However, it can be compounded with only a few verbs: *huri-tuzuku* ‘continue to (rain) fall’, *nari-tuzuku* ‘continue to ring’ or with a bleached V1, *uti-tuzuku* hit-continue; *hiki-tuzuku* pull-continue ‘continue’. Due to its unproductive nature, I assume that the compound with *-tuzuk* is lexical.

- c. boku no taizyuu wa dondon hue-tuzukeru
 I GEN weight TOP rapidly increase-continue
 'My weight will increase continuously.' (Text: Harada)

One difference between *-tuzuke_{CORE}* and *-hazime_{CORE}* is that *-tuzuke_{CORE}* 'continue' can occur with a state predicate, as shown in (31a), in contrast to (31c) with *-hazime*.

- (31) a. sibahu ga huyu-zyuu azayakana midori de-ari-tuzukeru
 glass NOM winter-throughout vivid green COP-exist-continue
 'The glasses will be vivid green continuously (remain to be vivid green)
 throughout the winter.' (Text: Kimura)
- b. sibahu ga azayakana midori da
 glass NOM vivid green COP
 'The glasses are vivid green.'
- c.* sibahu ga azayakana midori de-ari-hasizme-ta
 glass NOM vivid green COP-exist-begin
 (intended) 'The glasses began to be vivid green.'

The dependent core itself is complex in (31a). The copula *da* in (31b) first must be linked to *ar* 'exist' in order to be linked to the matrix predicate *-tuzuke_{CORE}* 'continue' (*de* is the linking form of *da*). In (31a) the meaning of *ar* 'exist' has the sense of 'remain' when combined with *-tuzuke_{CORE}* as in 'The glasses remain to be vivid green'. The point is that this example indicates that *-tuzuke_{CORE}*'s semantic requirement is less restrictive than that of *-hazime_{CORE}*.

On the other hand, *-tuzuke_{NUC}* depicts a scene where *continuation* is carried out by a human actor, as in (32).

- (32) a. hahaoya wa kare no okane o nusumi-tuzuke-ta
 mother TOP he GEN money ACC steal-continue-PST
 'The mother continued to steal his money.'
- (cf) b. hahaoya wa nusumi o tuzuke-ta
 mother TOP stealing ACC continue-PST
 'The mother continued stealing.'

- c. Taroo wa issyokenmee gambari-tuzuke-ta
 Taro TOP with.efforts try.hard -continue-PST
 ‘Taro continued to try very hard.’

Stealing and trying hard both require human intentionality, which suggests that *-tuzuke* also requires an agent. Then, the lexical entry of *-tuzuke* ‘continue’ must be DO (x, [do_(x, continue_(x, y))]), where y is LS for V1 which must contain [do_(x, …)] where x is an agent.

The distinction between *-tuzuke_{NUC}* and *tuzuke_{CORE}* can be summarized as in (33).

(33) The distinction of the two *-tuzukes*

- a. **Agent-foregrounding option:**
-tuzuke_{NUC} : DO (x, [do_(x, continue_(x, y))]) where y is LS of V1, which contains do_(x, […]) and x=agent
- b. **Situation-foregrounding option:**
-tuzuke_{CORE}: continuous_(x), where x is an LS

Before we turn to the next section, it is worth mentioning the V2, *-makur* ‘roll.up (repeatedly)’ here. Though it does not mark the middle phase *per se*, the characteristics seem analogous to *-tuzuke* in that they both make no reference to the right or the left boundaries of an event.

As an independent verb, *-makur* is a transitive verb meaning to ‘roll up’, as shown in (34a), whereas as V2, it expresses repetitive actions¹⁴, as in (b).

¹⁴ The meaning of *-makur* is not simply a repetition. If one needs to express repetition only, we may use a verb like *kurikaes-* ‘repeat’ as in (a).

- (a) kurikaesi-te it-ta
 repeat-LINK say-PST
 ‘I told that to her repeatedly.’
- (b) ii-makut-ta
 say-roll.up(repeatedly)-PST
 ‘I kept rattling on.’

- (34) a. syatu no sode o makut-ta
 shirt GEN sleeve ACC roll.up-PST
 ‘She rolled up her shirt’s sleeves.’
- b. Hanako wa syoosetu o kaki-makut-ta
 Hanako TOP novel ACC write-roll.up(repeatedly)-PST
 ‘Hanako kept on writing novels.’

I hypothesize that *-makur* ‘roll.up (repeatedly)’ also enters into a core subordination structure. This is because it can take the passive morpheme as in (35a); it involves no argument sharing between the base verb and *-makur* (compare 35b and 35c); and the sentence in (35b) shows that *-makur* can take a non-human argument and that it can occur with a telic verb like *teeden-suru* ‘lights go off’.

- (35) a. Taroo ga Hanako ni nagur-are-makut-ta
 Taro NOM Hanako by hit-PASS-roll.up(repeatedly)-PST
 ‘Taro got beaten repeatedly by Hanako.’
- b. katee ga teeden-si-makut-ta
 homes NOM power.failue-do-roll.up(repeatedly)-PST
 ‘The houses got a blackout all over.’ (Text: Harada)
- c. * katee ga makut-ta
 homes NOM roll.up(repeatedly)-PST
 ‘The homes rolled up something.’

From these points, I propose the lexical entry for *-makur* as follows:

- (36) *-makur*: **repetitive**_—(*x*), where *x* is an LS [*x*=-static]

Matsumoto (1996: 184-185) states that “*makur(-u)* ‘continue (repeat) actively’ ... behave[s] as a Type II aspectual verb.” By this, he refers to the transitive-type predicate

The meaning of (a) is quite distinct from *-makur* in (b). The example in (b) embraces special intensity which involves one’s view about the event (e.g., *I rattle on until I got satisfied*). Since this part of the meaning is not immediately relevant to the current discussion, the meaning of *-makur* will not be perused here.

which takes the argument structure of <AGENT, SUBEVENT>. This cannot be correct, however, since it can readily take a non-agent argument, as we saw in (35b).

6.5. Final phase: *-owar* ‘*finish_{intran}*’ and *-owe* ‘*finish_{tran}*’

6.5.1. Introduction

The V2s that mark the final phase of the MAIN EVENT are *-owar* ‘*finish_{intran}*’ and *-owe* ‘*finish_{tran}*’. The examples in (37) show that they both mean ‘*finish*’ as an independent verb and that the intransitive form has a transitive use as well (the semantic difference between (37b) and (37c) is to be discussed in Section 6.5.3).

- (37) a. zyugyoo ga owat-ta
class NOM finish_{intran}-PST
‘The class finished.’
- b. sensee ga zyugyoo o owe-ta
teacher NOM class ACC finish_{tran}-PST
‘The teacher finished the class.’
- c. sensee ga zyugyoo o owat-ta
teacher NOM class ACC finish-PST
‘The teacher finished the class.’

In previous syntactic analyses, these two are associated with two structural types: intransitive (raising) and the transitive (control): *-owar* ‘*finish_{intran}*’ takes both structures, whereas *-owe* ‘*finish_{tran}*’ appears only in the transitive (Kageyama 1993; Shibatani 1973a). Matsumoto (1992, 1996) seems to hypothesize that the structures for *-owar* ‘*finish_{intran}*’ and *-owe* ‘*finish_{tran}*’ match the morphological forms; namely, *-owar* ‘*finish_{intran}*’ occurs in the intransitive structure, whereas *-owe* ‘*finish_{tran}*’ occurs in the transitive structure. Contrary to these views, Toratani (1999) argues that both *-owar* ‘*finish_{intran}*’ and *-owe* ‘*finish_{tran}*’ belong to a single structural type, whereas *-hazime* ‘begin’

belongs to two structural types. The structural types for *-owar* and *-owe* were described in terms of their relative structural tightness; namely ‘tighter’ vs. ‘looser’ juncture (see the hierarchy of the juncture-nexus types, (4) in Chapter 2) without specifying the juncture-nexus types. It was argued that *-owar* ‘*finish_{intran}*’ and *-owe* ‘*finish_{tran}*’ both appear in a tighter juncture whereas *-hazime* appears in both. This section maintains this position and proposes that the juncture-nexus type of both *-owar* ‘*finish_{intran}*’ and *-owe* ‘*finish_{tran}*’ is nuclear cosubordination. First, the main point of Toratani (1999) is outlined. Then, the semantic difference between the two is examined. Lastly, the juncture nexus-type is discussed.

6.5.2. Toratani (1999)

Toratani (1999) observes that *-owar* ‘*finish_{intran}*’ and *-owe* ‘*finish_{tran}*’ impose the same kind of semantic constraints on V1. This was based on three observations made by examining the co-occurrence patterns with V1. First, *-owar* and *-owe*’s productivity are substantially limited (in terms of frequency) in comparison to *-hazime* ‘begin’ and *-tuzuke* ‘continue’ (see Chapter 3). Just eleven types of verb-*owar* ‘*finish_{intran}*’, and nine types of verb-*owe* ‘*finish_{tran}*’ were found in the texts cited in the text references, as shown in (38) and (39) respectively.

(38) Verb that occurred with *-owar* ‘finish_{intran}

<u>V1-</u>	<u>gloss (context)</u>	<u>No. of tokens</u>	<u>class</u>
a. hodok-	‘untie’ (the parcel)	(1)	caus. accomplishment
b. ut-	‘snap’ (the last ball)	(1)	causative achievement
c. suw-	‘smoke’ (the cigarette)	(4)	active accomplishment
d. tabe-	‘eat’ (the meal)	(6)	active accomplishment
e. susur-	‘slurp up’ (the last drop of the soup)	(1)	active accomplishment
f. hanas-	‘talk about’ (it)	(1)	active accomplishment
g. iw-	‘say’ (everything)	(1)	active accomplishment
h. kak-	‘write’ (my name)	(1)	active accomplishment
i. yom-	‘read’ (this thick book)	(1)	active accomplishment
j. kazoe-	‘count’ (the number)	(1)	active accomplishment
k. me o toos-	‘take a look at (lit. eye ACC let through)’ (the entire document)	(1)	active accomplishment

(39) Verb that occurred with *-owe* ‘finish_{tran}

<u>V1-</u>	<u>gloss (context)</u>	<u>No. of tokens</u>	<u>class</u>
a. tenka-si-	‘light up’ (the candle)	(1)	causative achievement
b. sime-	‘tie up’ (the apron)	(1)	caus. accomplishment
c. nom-	‘drink’ (the beer/coffee/water/tea)	(4)	active accomplishment
d. iw-	‘say’ (so/that...)	(2)	active accomplishment
e. syaber-	‘speak about’ (it)	(2)	active accomplishment
f. hanas-	‘talk about’ (it)	(1)	active accomplishment
g. yomi-	‘read’ (the letter/the article)	(2)	active accomplishment
h. kak-	‘write’ (the sentences)	(1)	active accomplishment
i. nar-	‘ring’	(1)	activity

Second, the verb classes they co-occur with are analogous: *-owar* ‘finish_{intran}’/-*owe* ‘finish_{tran}’ both occur with active accomplishment, causative accomplishment and causative achievement verbs, except for one instance *-owe* ‘finish_{tran}’ co-occurring with an activity verb *nar* ‘ring(telephone)’.¹⁵ I interpret that this is a marked usage where the

¹⁵ This verb appeared in the following context.

mou itido denwa no	beru ga	nat-ta ga
once more telephone of	bell NOM	ring-PST but
kare wa kondo wa	kikoe-nai	huri o
		si-te-o-ta

active accomplishment reading is coerced in that the telephone is regarded as a personified entity which can control the number of the ringing actions.¹⁶ If we put aside this marked case, the Aktionsart classes that co-occur with *-owar* ‘*finish_{intran}*’ and *-owe* ‘*finish_{tran}*’ all share ***do***_(*x*, ...) and *BECOME/INGR pred*_(*y*) where the referent of the *y* argument involves a bounded quantity. Third, all the verbs occur with a human subject, irrespective of whether the verb is compounded with *-owar* ‘*finish_{intran}*’ or *-owe* ‘*finish_{tran}*’.

Given these three points, the semantic requirement of the two verbs was hypothesized to be as follows.

- (40) *-Owar* ‘*finish_{intran}*’ and *-owe* ‘*finish_{tran}*’ require that V1 consists of
do_(*x*, Ø) CAUSE/& BECOME/INGR ***pred***_(*y*), where the actor is [+human]

This predicts that they cannot occur with inherently telic verbs, which lack an activity component (namely, achievements and accomplishments). This is borne out in (41).

- (41) [Achievement] e.g., *mitukar-* ‘find’: INGR ***known***_(Ø,[***be-at***_(*((y)*, *z*))])

- a. * *mitukari_{intran}-owaru_{intran}* / * *mitukari_{intran}-oweru_{tran}*
 find-finish / find-finish

- [Accomplishment] e.g., *toke-* ‘melt’: BECOME ***melt***_(*x*)
 b. * *toke_{intran}-owaru_{intran}* / * *toke_{intran}-oweru_{tran}*
 melt-finish / melt-finish

he	TOP	this	time	TOP	be.audible-not	appearance	ACC	do-TE-exist-PST
denwa	ga	nari-oe-ta	koro		kare	wa	omoidasi-ta	youni
telephone	NOM	ring-finish-PST	around	he	TOP		remember-PST	as if

terebi	no	suitti	o	hutatabi	on	ni	si-ta
TV	of	switch	ACC	again	on	DAT	do-PST

(Text: Murakami, p. 89)
 ‘Although the telephone rang once more, he pretended that he could not hear it this time. Around the time the telephone stopped ringing, he turned on the TV’s switch again as if he just remembered it.’

¹⁶ Nishigauchi (1993) notices that a verb like *aruk-* ‘walk’ can occur with *owe-* when it is used in Vendler’s sense of accomplishment.

This also predicts that they cannot occur with inherently atelic verbs, (namely, state and activity, and their causative counterparts), and this is also borne out in (42).

- (42) [Activity] e.g., *yure-* ‘swing’: **do**_(x, [**shake**_(x)]))
- a. * *yure_{intran}-owaru_{intran}* / * *yure_{intran}-oweru_{tran}*
swing-finish / swing-finish
- [State] e.g., *i-* ‘exist’: **exist**_(x)
- b. * *i_{intran}-owaru_{intran}* / * *i_{intran}-oweru_{tran}*
exist-finish / exist-finish
- [Causative Activity]
- e.g., *yurasi-* ‘shake’: **do**_(z, Ø) CAUSE **do**_(x, [**shake**_(x)]))
- c. * *yurasi_{tran}-owaru_{intran}* / * *yurasi_{tran}-oweru_{tran}*
shake-finish / shake-finish

The point is that *-owar* and *-owe* are analogous in that they both require V1 to possess **do**_(x, Ø) CAUSE/& BECOME **pred**_(y), where $x=[+human]$.

6.5.3. The semantic difference

Thus far, we have observed that *-owar* ‘*finish_{intran}*’ and *-owe* ‘*finish_{tran}*’ semantically restrict V1 in a similar fashion. We now consider the semantic difference between the two. Previous studies (e.g., Shibatani 1973a) argue that the difference is the presence or absence of an agent. However, it cannot solely be attributed to agency or intentionality, because *-owar* and *-owe* both require a [+human] actor. Moreover, as shown in (43), they both can readily occur with a form like *(y)oo* ‘let’s’, which denotes situations which involve strong human intentionality.

- (43) a. rombun o kaki-owe-yoo!
paper ACC write-finish_{tran}-let's
'Let's finish writing the paper!'

- b. rombun o kaki-owar-oo!
 paper ACC write-finish_{intran}-let's
 'Let's finish writing the paper!'

I suggest that the difference is accounted for by the notion of *force dynamics* (Talmy 1981, 1988, 2000). Specifically, the sense of overcoming difficulties is present in *-owe* 'finish_{tran}' but not in *-owar* 'finish_{intran}'. If they occur with a phrase such as *muri-si-te-de-mo* 'even if you have to force yourself', the sentence with *-owe* is acceptable (44a) but the sentence with *-owar* is awkward (44b).

- (44) a. muri-si-te de mo sono sigoto o kyoo-zyuuni
 force-do-LINK by FOC that job ACC today-within

yari-owe-te-kudasai
 do-finish_{tran}-LINK-please

'Please finish that job today even if you have to force yourself.'

- b. ? muri-si-te de mo sono sigoto o kyoo-zyuuni
 force-do-LINK by FOC that job ACC today-within

yari-owat-te-kudasai
 do-finish_{intran}-LINK-please

'Please finish that job today even if you have to force yourself.'

-Owar more readily depicts the end point of one's routine task (i.e., if one routinely spends time, the end-point is reached in due course). On the other hand, *-owe* expresses the sense of an actor's overcoming difficulties in order to reach the end point. I will use 'DO [+FORCE]' as part of the LS to represent the overcoming sense of *-owe*.

The concept of force dynamics alone does not fully account for the semantic difference between the two. There is a more fundamental difference, which is analogous to the difference between *owar-* and *owe-* as independent verbs. Recall that the

intransitive form *-owar* has a transitive use. The relevant examples are repeated from (37) as (45).

- (45) a. sensee ga zyugyoo o owe-ta
 teacher NOM class ACC finish_{tran}-PST
 ‘The teacher finished the class.’
- b. sensee ga zyugyoo o owat-ta
 teacher NOM class ACC finish_(intran/)tran-PST
 ‘The teacher finished the class.’

I argue that the difference between the two verbs in (45) is the Aktionsart class.

Application of the diagnostic tests indicates that *owar-* is a two-place achievement verb, and *owe-* is an active accomplishment verb. The sentences in (46) show the relevant results of the diagnostic tests.

- (46) Test 1: -te-iru-test
- a. * sensee ga zyugyoo o owat-te-i-ru
 teacher NOM class ACC finish-LINK-exist-NPST
 ‘The teacher is finishing the class.’
 (Two-place achievement is incompatible with *-te-i-ru*)
- a_. sensee ga zyugyoo o owe-te-i-ru
 teacher NOM class ACC finish-LINK-exist-NPST
 ‘The teacher is finishing up the class.’
 (not perfect, but interpretable as the agent action being in progress)
- Test 3: durative in-test
- b. * sensee ga zyugyoo o go-hun-de owat-ta
 teacher NOM class ACC 5-minute-in finish-PST
 ‘The teacher finished the class in 5 minutes.’
 (The duration can refer only to the entire class period, but not the actual finishing time. The change of state from *not be over* to *be over* is punctual.)
- b_. sensee ga zyugyoo o go-hun-de owe-ta
 teacher NOM class ACC 5-minute-in finish-PST
 ‘The teacher spent 5 minutes to finish the class.’

Test 6: *slowly*-test

- c. ? sensee ga zyugyoo o yakkuri owat-ta
 teacher NOM class ACC slowly finish-PST
 ‘The teacher spent time to finish the class.’
 (‘Slowly’ gives rise to the slow motion interpretation)

- c_. sensee ga zyugyoo o yakkuri owe-ta
 teacher NOM class ACC slowly finish-PST
 ‘The teacher spent time to finish the class.’

The main difference we can observe in these examples is that (i) *-owar* is punctual, whereas *-owe* is durative; (ii) *-owar* focuses (‘profiles’ (Langacker 1987) or ‘windows’ (Talmy 1996)) the end point of the event, whereas *-owe* focuses on the both end point and the preceding completing process by the actor. Based on the results of the diagnostic tests, I hypothesize that the Aktionsart class of *owar-* is achievement, and that of *owe-* is active accomplishment, which has the LSs of (47).

- (47) a. *owar-* INGR **finished**_ (x, y)
 b. *owe-* DO (x, [**do**_ (x, Ø)]) & BECOME **finished**_ (y)

Based on (47), I furthermore hypothesize that *-owar* and *-owe* as V2 have the LSs of (48).

- (48) a. *-owar* ‘*finish_{intr}*’: INGR **finished**_ (x, y),
 where y is the LS of V1 which contains
do_ (x, Ø) ... INGR/BECOME **pred**_ (z), x=effector
 b. *-owe* ‘*finish_{tran}*’: DO_[+FORCE] (x, [**do**_ (x, Ø)]) & BECOME **finished**_ (y),
 where y is the LS of V1 which contains
do_ (x, Ø) ... INGR/BECOME **pred**_ (z), x=agent

The subscript [+FORCE] represents the overcoming sense present in *-owe* *finish_{tran}*. *DO* is obligatory with *-owe*, whereas it is left out for *owar-*, indicating that intentionality is unspecified.

6.5.4. The juncture-nexus type

Having examined the meaning of *-owe* and *-owar*, we now proceed to their structural type. I argue that the levels of juncture of *-owe* and *-owar* are both nuclear. Their juncture-nexus type cannot be core-juncture given the passivization pattern: namely, neither predicate can take *-(r)are* as its preceding element, as shown in (49).

- (49) a. *itigo ga tum-are-owe-ta
strawberry NOM pick.up-PASS-finish_{tran}-PST
(Intended) 'The strawberries finished being picked up.'
- b. *itigo ga tum-are-owat-ta
strawberry NOM pick.up-PASS-finish_{intran}-PST
(Intended) 'The strawberries finished being picked up.'

The reason why these two sentences are unacceptable is straightforwardly explained.

Recall that *-owe* and *-owar* both require V1 to have an agent actor (macrorole), which is the *x* argument of **do**_{_}(*x*, Ø) ... INGR/BECOME **pred**_{_}(*z*). Since the function of *-(r)are* is to alter the default-linking of macroroles by selecting the undergoer to be the privileged syntactic argument, in (49), the undergoer *strawberries* is selected as the privileged syntactic argument. However, since *-owe* and *-owar* are not followed by the passive morpheme, it is interpreted that the NOM-marked argument is selected as an actor. Since the NOM-marked argument is non-human *strawberries* in (49), what *-owe* and *-owar* require is incompatible with the information provided by the event denoted by V1-*(r)are*. And hence, the sentences in (49) are unacceptable.

On the other hand, the passive morpheme can follow the verb-*owe* as shown in (50a).

- (50) a. itigo ga tumi-owe-rare-ta
strawberry NOM pick.up-finish_{tran}-PASS-PST
‘The strawberries were picked up completely.’
- b. * itigo ga tumi-owar-are-ta
strawberry NOM pick.up-finish_{intran}-PASS-PST
‘The strawberries were picked up completely.’

That the passive morpheme can follow the entire compound in (50a) shows that V1-*owe* belongs to a single core. Notice that the *-owar* counterpart in (50b) is awkward. I argue that this awkwardness is due to an independent reason, namely that *-owar*’s morphological coding is intransitive¹⁷ and when -(r)are attaches to it, the indirect passive reading is coerced. Thus, the unacceptability of (50b) does not undermine the position that *-owe* and *-owar* belong to the same structural type.

Now, consider the interpretation of a nuclear adverb *kanzen-ni* ‘completely’ with a verb-*owe* ‘finish’ in (51a-c).

- (51) a. Taroo wa kanzen-ni tyokoreeto o tokasi-owe-ta
Taro TOP completely chocolate ACC melt-finish_{tran}-PST
‘Taro finished melting the chocolate completely.’
- b. # demo tyokoreeto wa kanzen-ni toke-nakat-ta
but chocolate TOP completely melt-NEG-PST
‘But the chocolate did not melt completely.’
- c. # demo Taro wa kanzen-ni sore o
but Taro TOP completely that ACC
owe-nakat-ta
finish_{tran}-NEG-PST
‘But Taro didn’t finish it completely.’

¹⁷ Jacobsen (1992) presents a list of morphologically related intransitive-transitive verbs in Japanese. According to this list, the form with *-ar-* is always intransitive.

When (51a) is asserted, it is contradictory to continue with (51b) and (51c). This indicates that *kanzen-ni* ‘completely’ has scope over both nuclei, showing that the structure of verb-*owe* is nuclear cosubordination. The same point can be said about -*owar*, as in (51d-f).

- (51) d. Taroo wa kanzen-ni tyokoreeto o tokasi-owat-ta
 Taro TOP completely chocolate ACC melt-finish_{intran}-PST
 ‘Taro finished melting the chocolate completely.’
- e. # demo tyokoreeto wa kanzen-ni toke-nakat-ta
 but chocolate TOP completely melt-NEG-PST
 ‘But the chocolate did not melt completely.’
- f. # demo Taroo wa kanzen-ni sore o
 but Taro TOP completely that ACC
 owara-nakat-ta
 finish-NEG-PST
 ‘But Taro didn’t finish it completely.’

Based on the scope interpretation of the nuclear modifier and the interaction with the passive morpheme, I hypothesize that both -*owar* and -*owe* are instances of nuclear cosubordination.

In Section 6.2.2, we discussed the difference between the agent-foregrounding option and the situation-foregrounding option. If both -*owar* and -*owe* are instances of nuclear cosubordination, it must be the case that they do not express the situation-foregrounding option. This turns out to be the correct prediction. If the compound is capable of indexing the FINAL phase of an event by the situation-foregrounding option, it should be able to express the Japanese equivalent of *The tap water stopped dripping*. However, this simply cannot be done by -*owar* or -*owe*, as indicated below.

- (52) a. *suidoo no mizu ga tare-owat-ta
 b. *suidoo no mizu ga tare-owe-ta
 tap of water NOM drip-finish-PST
 (intended) ‘The tap water stopped dripping.’

The ungrammaticality of (52a/b) is because V1 lacks the requirements of *-owar/-owe*.

First, *tare-* ‘drip’ does not take a [+human] *x* argument. Secondly, it does not take the *z* argument which denotes an entity with a bounded quantity. The scene which can be described by the situation-foregrounding option must involve unboundedness (e.g., a series of iterated events), and this characteristic is incompatible with the requirement of *-owar* or *-owe*.

Kodama (1998a) attempts to offer an account for the distinction between *-owar* and *-owe* from a cognitive perspective. She seems to hypothesize that part of the verb root bears a particular semantic function: namely, *-e-* in *-owe* serves to profile *agent* and *-ar-* in *-owar* profiles *event*, but the former *-e-* may profile *event* as well. Observing a sentence like (53), Kodama (1998a: 167) explains that “[w]hen the subject is plural..., agentivity has been lost.”

- (53) sensyu wa (zen'in) yunihoomu o ki-ow-e-ta
 player TOP (all) uniform ACC wear+finish-vt-PAST
 ‘All the players/A player finished putting on their/his uniform(s).’

She argues that this example goes counter to the standard claim (e.g., Shibatani 1973a) that *-owe* requires an *agent*, because it is the ‘conceptualizer’ who depicts the completion of the event in an example like this. As we have already seen, in whichever way the scene may be perceived, the fact that the construction verb-*owe* requires an actor remains. If *-owe* or *-owar* is capable of serving to profile the event as a whole, a situation such as *The water stopped dripping* should readily be depicted. However, this is not the case.

The *profiling* choice comes into play only when the predicates occur in two juncture levels; nuclear and core, as is the case with *-hazime* ‘begin’.

The term *agent* has been used in a number of ways. I follow Van Valin and Wilkins’s (1996) proposal that agency is a derived notion where a number of factors (e.g., semantic, pragmatic) are amalgamated into the basic role, termed *effector*. The standard use of the term *agent* in association with the transitive structure of verb-*owe* intends to show that the construction semantically requires an *effector*, which is mapped on to the subject function or position. -*Owe* and -*owar* both require an *effector*, which must be realized as the nominative-marked argument in the construction in active voice. This is independent of how the situation is perceived.

One more point that needs to be addressed is whether the construction with -*owe* should be characterized in terms of control (I assume the same can be said about -*owar*). Control is understood here to mean that the phonologically unrealized subject of the non-matrix predicate (except for a discourse ellipsis) is interpreted to be the same as the subject of the matrix predicate (in ‘subject-control’ such as *Chris promised Jane __ to stay*). In RRG, this type of interpretation of a missing argument must be accounted for at the core-level juncture. A core juncture involves two distinct events with two sets of arguments, where minimally one argument of each predicate is shared across the cores in the non-subordinate core. I have already argued that the juncture-nexus type of the verb-*owar* or verb-*owe* cannot be the core-level. Hence, the construction of these predicates involves no issue of control.

To sum up, this section argued that only one juncture-nexus type, nuclear cosubordination, ought to be posited for the verb-*owar* and verb-*owe*. This section also

argued that the fundamental difference of the verb-*owar* and verb-*owe* is that the former is a two-place achievement verb, whereas the latter is an active accomplishment verb, which requires V1 to possess an effector and [+bounded] undergoer, and furthermore, a special feature DO_[+FORCE] is necessary to account for the overcoming sense by the actor with -*owe*. We also saw that there is no compound verb that expresses the FINAL phase of an event by means of the situation-foregrounding option.

6.6. Prior to the onset of an atelic phase: -*kake/-kakar* ‘hook_{tran/intran} (be about to)’

The phase verbs we lastly examine are -*kake* ‘hook_{tran} (be about to)’ and -*kakar* ‘hook_{intran} (be about to)’. A particular phase is not designated for them, for it differs depending on the lexical aspect of V1. First, their juncture-nexus type is briefly discussed, and then the temporal point expressed by -*kake* ‘hook_{tran} (be about to)’ is examined.

6.6.1. The juncture-nexus type

The juncture-nexus type of -*kake* ‘hook_{tran} (be about to)’ and -*kakar* ‘hook_{tran} (be about to)’ can be argued to be core subordination, following the same line of argument presented for -*hazime_{CORE}* ‘begin’. Their relation with the direct passive is precisely the same; -*kake/-kakar* can follow -(r)are ‘passive’, as in (54).

- (54) Hanako ga Taroo ni osow-are-kake(/kakat)-ta
Hanako NOM Taro by attack-PASS-hook_{tran(/intran)}(be.about.to)-PST
‘Hanako almost got attacked by Taro.’

Furthermore, like *-hazime_{CORE}* ‘begin’, *-kake/-kakar* does not enter into an argument-sharing relation with the base verb. As shown in (55b), the NP of the base verb is not an argument of *-kake/-kakar* (as an independent verb, it means to ‘hook_{tran/intran}’).

- (55) a. hi ga kie-kake(/kakat)-ta
fire NOM go.out- hook_{tran(/intran)}(be.about.to)-PST
‘The fire is going out almost.’
- b. hi ga kie-ta
fire NOM go.out-PST
‘The fire went out.’
- c. * hi ga kake(/kakat)-ta
fire NOM hook_{tran(/intran)}-PST
‘The fire hooked something.’

Thus, it is safe to conclude that the juncture-nexus type of *-kake/-kakar* ‘hook (be about to)’ is core subordination.

As far as the difference of *-kake* and *-kakar* is concerned, we can follow Himeno’s (1979, 1999) insights, which we already discussed in Chapter 3. In essence, the differences can be summarized that (i) all of the combinations with *-kakar_{intran}* can be restated by the combination with *-kake_{tran}*, but not vice versa; (ii) the intransitive form involve non-volitionality, and accordingly a sentence like (56a) with the verb form that requires strong volition is awkward, while the intransitive form can readily be combined when the verb is passivized as in (b).

- (56) a. ? hito o korosi-kakar-u
person ACC kill-hook_{intran}(be.about.to)-NPST
‘I am about to kill the man.’
- b. hito ni koros-are-kakar-u
person by kill-PASS-hook_{intran}(be.about.to)-NPST
‘I am about to be killed by a man.’

While the specific differences need to be studied in the future, for now, we assume that *-kakar* requires non-volitional or non-agent V1, whereas *-kake* is neutral for this requirement. The discussion of the following section focuses on *-kake*, for it is the productive form.

6.6.2. The meaning of *-kake* ‘hook_{tran} (be about to)’¹⁸

The goal of this section is to identify the temporal point or phase *-kake* refers to. Previous literature (Himeno 1979, 1999; Kindaichi 1955 [1976]; Toratani 1997, 1998; Tsujimura and Iida 1999¹⁹) posits that *-kake* is associated with two distinct phases, which can be exemplified in a sentence like (57).

- (57) banana o tabe-kake-ta
 banana ACC eat-hook-PST
 ‘She almost ate the banana.’
 (a) She was about to eat the banana.
 (b) She ate the banana halfway.

Traditionally, the two readings in (a) and (b) are called *syogen-tai* ‘emergent phase’, referring to the phase immediately before the action is conducted as in (a), and *sido-o-tai*, ‘beginning phase’, referring to the phase where the action is conducted halfway through

¹⁸ Part of the content of this section was presented at the 2001 International workshop and conference on Role and Reference Grammar on July 29, 2001 at the University of California at Santa Barbara. I am grateful to the audience for their comments, particularly, Yasuhiro Shirai, Toshio Ohori and Naoko Takahashi.

¹⁹ Tsujimura and Iida (1999) examine the distribution of the *meanings* for the deverbal nominal version of verb-*kake* (cf. Kishimoto 1996), such as below, on the basis of Dowty’s (1979) classification. The specific difference of the meaning between the predicate and its deverbal nominal counterpart must be studied in the future. However, it is assumed that the problem of associating the two readings with the verbal classes discussed in this section applies to the deverbal nominal construction as well.

(a) nomi-kake-no miruku
 drink-KAKE-Gen milk
 ‘milk, half drunk’ (Tsujimura and Iida 1999: 107)

the event, as in (b) (Kindaichi (1950[1976], 1955 [1976])). For the purpose of the ease of the exposition, they will be referred to as the ‘be about to’ and ‘halfway’ readings.

Kageyama and Yumoto (1997: 83-84) briefly discuss the meaning of *-kake*, speculating that *-kake* has one meaning, “it perhaps provides an imperfective phase to its sentential complement...and the two readings arise depending on the meaning, particularly the aspect, of the verb it is combined with.” This section shows that Kageyama and Yumoto’s observation is in fact correct. It argues that *-kake* marks a single temporal point in the course of the event, and hence only one entry for *-kake* should be posited. It also argues that the difference in the two readings is determined on the basis of how the cognizer perceives the event.

6.6.2.1 Previous literature

The distribution of the two readings (‘be about to’ and ‘halfway’) has been examined in association with the lexical aspect of the verb with which *-kake* co-occurs. First, Kindaichi (1950 [1976]) uses his own classification, and notes that: (i) state verbs are incompatible with *-kake* (58a); and ‘instantaneous’ verbs (i.e., telic verbs)²⁰ yield one and only one reading, ‘be about to’ (58b).

- (58) a. *ari-kake-ru
exist-hook-NPST
‘It is about to exist.’
- b. otoko ga sini-kake-te-i-ru
man NOM die- hook-LINK-exist-NPST
‘The man is about to die. /*The man is dying halfway.’

In response to Kindaichi’s second point, Himeno (1979, 1999) draws attention to the fact

²⁰ Kindaichi’s labeling ‘instantaneous’ is misleading. The class corresponds to telic verbs, which includes non-instantaneous verbs.

that some ‘instantaneous’ verbs can yield the ‘halfway’ reading, as in (59).

- (59) odoriko wa yuruku hiraki-kake-te-i-ru
 dancer TOP loosely open-hook-LINK-exist-NPST
 akai tubomi o eran-da
 red bud ACC choose-PST

‘The dancer chose the red flower which is budding halfway.’

The verb *hirak-* ‘open (intran.)’ belongs to Kindaichi’s ‘instantaneous’ class. Then, it is predicted that the compound *hiraki-kakeru* gives rise to the ‘be about to’ reading. However, this sentence describes the stage where budding has already started, but not the PREINCEPTIVE stage where budding is about to start.

Based on Kindaichi’s and Himeno’s observations, Toratani (1997) examined the co-occurrence patterns of *-kake* with the non-causative *Aktionsart* classes in the sense of Van Valin and LaPolla (1997). It was hypothesized that:

- (60) The availability of the reading is determined by (i) the type of the component and (ii) the number of the components in the Logical Structure of the V1 verb.

The distribution of the readings is summarized in Table 6.1.

Table 6.1: Summary of *-kake*’s readings with non-causative classes

Class	Logical Structure	Readings	Example
Activity	do_ (x, ...)	‘be about to’	naki-kake-ru cry-hook-NPST ‘be about to cry’
Achievement	INGR pred_ (x, (y))	‘be about to’	sini-kake-ru die-hook-NPST ‘be about to die’
Accomplishment	BECOME pred_ (x, (y))	‘halfway’	hiraki-kake-ru open-hook-NPST ‘open halfway’
Active Accomplishment	do_ (x, ...) & BECOME pred_ (x, (y))	‘be about to’ & ‘halfway’	tabe-kake-ru eat-hook-NPST ‘be about to eat’/ ‘eat it halfway’

Source: Toratani (1997: 17)

This table shows that each of the activity, achievement and accomplishment classes yield one reading, having one basic component in its Logical Structure such as **do**_ (x, ...); on the other hand, the class of active accomplishment yields two, having two distinct components, **do**_ (x, ...) and BECOME **pred**_ (x, (y)). Furthermore, this table indicates that the ‘be about to’ reading is available to activity and achievement, while the ‘halfway’ reading is available to accomplishment and active accomplishment. The reason why accomplishment and active accomplishment are associated with the ‘halfway’ reading is that in order to be able to assert that something is halfway through the event, the event must necessarily be durative and bounded at the end-point, and BECOME **pred**_ (x, (y)) is the only predicate that fulfills the criteria.

Now, when (60) is applied to causative classes, a problem emerges. Take *ok-put* as an example. This verb is a causative accomplishment, whose logical structure is [**do**_ (x, Ø)] CAUSE [BECOME **be-LOC**_ (y, z)]. The hypothesis of (60) would make two predictions: (i) the compound should have two distinct readings, having two distinct components; **do**_ (...) and BECOME **pred**_ (...), and (ii) the readings should be ‘be about to’ as in (61a), having an activity component, and the ‘halfway’ as in (61b), having an accomplishment component.

- (61) Kazue ga hon o tukue ni oki-kake-ta
 Kazue NOM book ACC desk DAT put-hook-PST
 a. Kazue was about to put the book on the desk.
 b. Kazue was halfway through putting the book on the desk

It turns out that distinguishing the two readings is not so clear-cut —namely, how far away from the desk should the book be in order to assert *Kazue is about to put the book* but not *Kazue is halfway through putting the book?*

In order to account for this problem, it is necessary to explicate the distinction of

the two readings. To do so, the next section examines which specific temporal point *-kake* refers to for each basic Aktionsart class.

6.6.2.2 Reexamination

Before we begin with the accomplishment verb, first note that Japanese uses the same verb stem to express a telic event and its resultative state. Consider an event of falling in Figure 6.2, as well as its descriptions in (62a) and (62b).

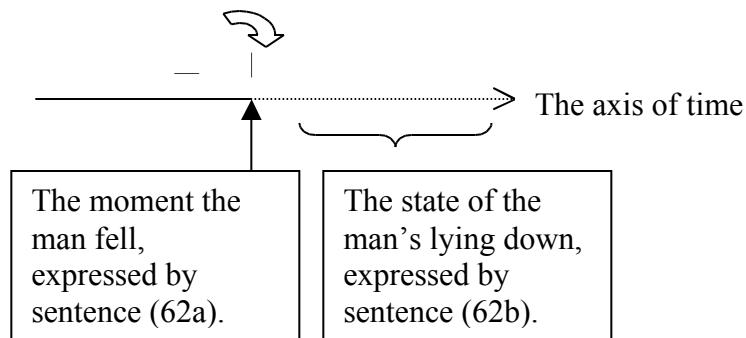


Figure 6.2: An event of falling

- (62) a. otoko ga taore-ta
man NOM fall-PST
'The man fell.' [taore-: achievement]
- b. otoko ga taore-te-i-ru
man NOM fall-LINK-exist-NPST
'The man is lying (as a result of falling).'

Sentence (62a) expresses that a telic event of falling took place, while (62b) depicts the man's state of lying as a result of falling. Note that the same verb root *taore-* 'to fall' is used here. This sentence pair shows that the resultative state is expressed by adding a grammatical sequence *-te-i* (LINK-exist) to an achievement verb in Japanese (see Chapter 2). Note also that this relation holds virtually for all telic verbs, both

achievement and accomplishment verbs. One example for an accomplishment verb is shown in (63).

- (63) a. nori ga katamat-ta
 paste NOM thicken-PST
 'The paste has become set.' [*katamar-*: accomplishment]
- b. nori ga katamat-te-i-ru
 paste NOM thicken-PST -LINK-exist-NPST
 'The paste is set (as a result of becoming set).'

These examples show that the end-point of the process/event, in effect, coincides with the onset of the resultative state. Figure 6.3 schematically shows this relationship.

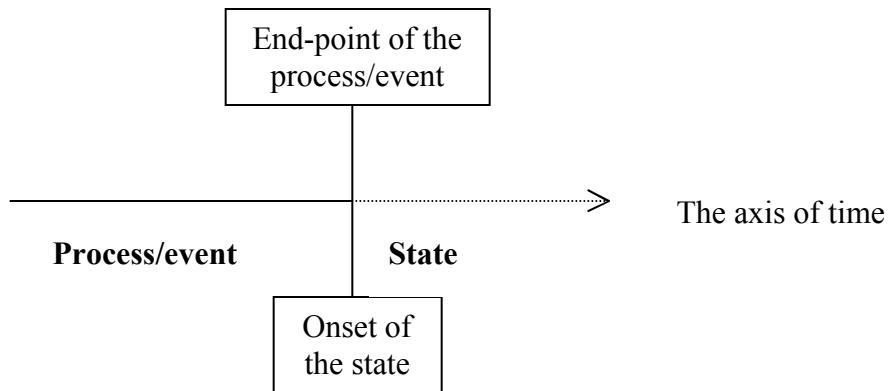


Figure 6.3: The relation of a telic event and the resultative state

Accomplishment

The distinct property that distinguishes accomplishments from achievements is durativeness. Accordingly, accomplishments are possible to co-occur with a durative *in-* phrase like *iti-zì-kan-de* 'in one hour', as in (64).

- (64) sentakumono ga iti-zikan de kawai-ta
 laundry NOM one-hour in dry-PST
 'The laundry dried in one hour.'

Importantly, this sentence entails that the event of drying was happening throughout the entire one-hour period (cf. Vendler 1957[1967], Binnick 1991). The ‘halfway’ point of this drying event can be expressed by *-kake*, as in (65).

- (65) sentakumono ga kawaki-kake-te-i-ru
 laundry NOM dry-hook-LINK-exist-NPST
 ‘The laundry is half-dried.’

This is consistent with the observation that accomplishment verbs yield the ‘halfway’ interpretation with *-kake*. Now, consider Figure 6.4.

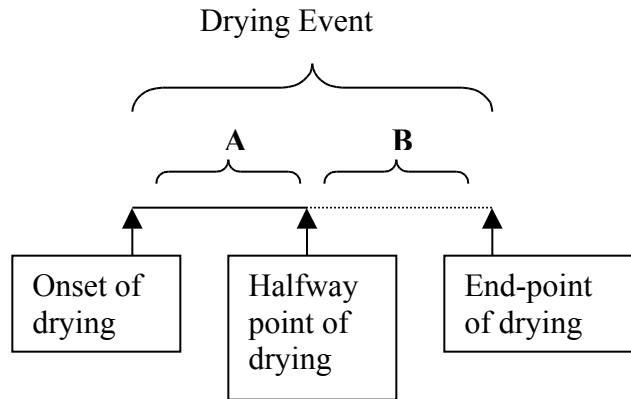


Figure 6.4: Event of drying

The sentence ‘The laundry is half-dried’ refers to the phase marked by A in this figure. Notice that the same temporal point can also be expressed by ‘The laundry is about to dry’, in which case, the speaker refers to the phase marked by B. This shows that *-kake* marks one and only one temporal point in the sequence of the event, and that the two readings represent where the cognizer places the reference point in perceiving the event; at the onset of the event, yielding the ‘halfway’ interpretation, or at the end-point of the event, yielding the ‘be about to’ reading. Figure 6.5 schematically illustrates this point.

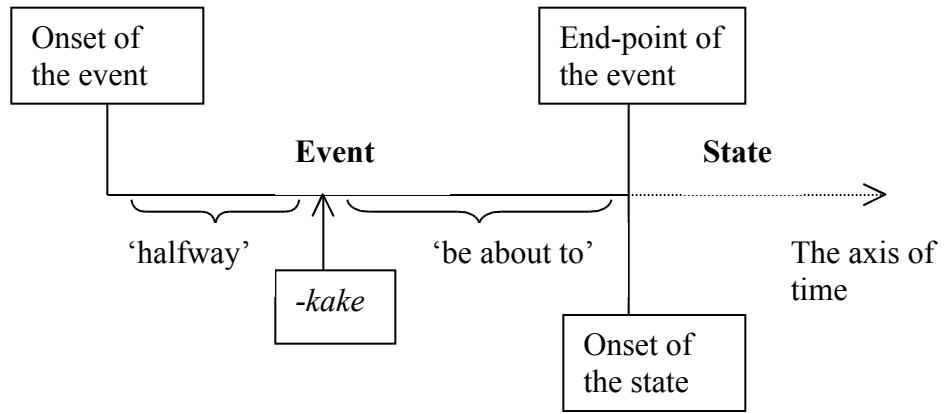


Figure 6.5: The schema of *-kake* with an event

Achievement

An event of achievement presumably takes place instantaneously. However, the instantaneity seems to involve a varying degree of temporal span. For example, the event of a man's falling onto the ground seems to involve some temporal intervals; falling from the upright position to the ground, at least the change of state is recognizable perceptually. On the other hand, in the event of 'dying', the change of state from being alive to be dead seems to involve virtually no duration.

Let us examine more closely how these two verbs are used. Sentence (66a) shows an example of *taore-* 'fall' used in a novel, whose context is given in (66b) in translation.

- (66) a. aomuke ni *taore-kake-ta*
 on his back fall-hook-PST
 'He almost fell on his back.' ... (Text: Natuki)
- b. 'Mr. Simao' consciousness suddenly faded away. "Help..." he muttered in a hoarse voice, almost falling on his back. He managed to hold and started to walk as if he were swimming.'

This context indicates that the man's posture has changed from an upright position to a

pre-collapsing position, where his body was halfway down to the ground, but somehow he managed to stabilize himself before falling down and started to walk. This indicates that *taore-kake* fall-hook refers to the mid point of the falling event, which can be depicted by either ‘The man was falling halfway’ or ‘The man was about to fall.’ The difference again is how the event is perceived; whether from the perspective of the onset of the falling process, or of the end-point of the process.

The sentence in (67) shows an example of *sin-* ‘die’ used in a novel.

(67)	mukasi	kiri no naka de	sini-kake- ta
	long ago	fog of inside at	die-hook-PST
	koto ga	ari-masu	
	event NOM	exist-POLITE	

‘Long ago, once, I almost died in the fog.’ (Text: Ikesawa)

This sentence appears in a context where a boy was ice-skating alone on a frozen lake in a forest and got lost in the fog. He was physically well, but he thought that he would freeze to death due to the cold temperature if he had not been rescued. At the end, it turns out that the boy managed to get out of the fog. Naturally, he did not die. Still, he describes this incident with *sini-kake-ta* ‘I was about to die’.

People die from various reasons; from sickness, drowning, freezing, etc. However, this stage is not part of the meaning of the verb *sin-* ‘die’; namely, however sick one may be, it is false to assert that he is dead. Smith (1997: 31) observes that achievement verbs may have ‘preliminary stages’, which refer to the stages conventionally associated with the event. The compound *sini-kakeru* die-hook can refer to any point in this preliminary stage as long as one can perceive that the death is approaching. Again, the temporal point *-kake* marks can be expressed in two ways (in

translation): (i) ‘I was halfway through the stage which would have lead to death’, using the perspective from the onset of the preliminary stage, or (ii) ‘I was about to die’, using the perspective from the end point of the process.

These examples indicate that *-kake* marks a temporal point prior to the end-point of the telic event, irrespective of whether the event is durative or not. Importantly, the event has to present some kind of indication or signs that it is going to happen. This sign-presenting stage does not have to reside in the temporal frame of the lexical aspect of the verb.

Activity

-Kake presents an analogous picture with activity verbs as well. Consider (68).

- (68) akanboo ga naki-kake-te-i-ru
 baby NOM cry-hook-LINK-exist-NPST
 ‘The baby is about to cry.’

The verb in (68) *nak-* ‘cry’ is an activity. This sentence depicts a scene where a baby, who had been asleep quietly, is now starting to vocalize something which is not yet a full-blown cry. In other words, the phase *-kake* refers to is the PREINCEPTIVE phase, prior to the onset of the activity. Recall that the end-point of the process/event coincides with the onset of the resultative state. Since both activities and the resultative state are atelic, we can now make the following generalization in (69).

- (69) *-Kake* marks a temporal point prior to the onset of an atelic phase of either a dynamic event or a resultative state.

Figure 6.6 shows this point.

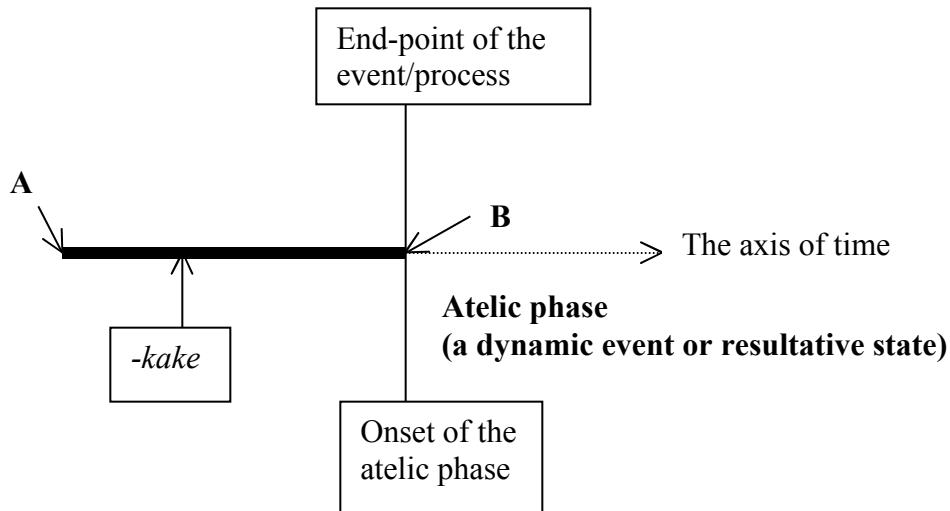


Figure 6.6: The schema of *-kake*

This figure shows that *-kake* indicates a point somewhere prior to the onset of the atelic phase (marked by B) but past the left-bound point (marked by A). The left-bound point refers to the ‘onset’ of:

- (70) (i) the preinceptive stage of an activity verb,
 (ii) the preliminary stage of an achievement verb, or
 (iii) the process of a telic verb (achievement or accomplishment).

Freed (1979) points out that the preinceptive stage involving an inanimate entity is difficult to depict. This point applies to *-kake* for the preliminary stage of accomplishment, as well as activity with an inanimate argument. For example, in order to mark the preinceptive stage of an activity verb, *-kake* requires that the effector of the event be capable of presenting some kind of ‘sign’ by which one can perceive that the event is in fact occurring, following the course of the nature, as illustrated in (78).

- (71) a. akanboo ga naki- kake-te-i-ru [activity (+animate)]
 baby NOM cry-hook-LINK-exist-NPST
 ‘The baby is about to cry.’

- b. * ame ga huri-kake-te-i-ru [activity (-animate)]
 rain NOM fall-hook-LINK-exist-NPST
 (Intended) ‘It is about to rain.’

While both (71a) and (71b) contain an activity verb, the compound with (71a) *nak-* ‘cry’ is acceptable but the one with (71b) *hur-* ‘fall’ is unacceptable. The difference in acceptability stems from the difference in animacy: (71a) involves an animate, whereas (b) involves an inanimate. Animate are self-propelled and can show a trace of the signs for the upcoming event; for example, the baby can change its facial expression and accompany this with some vocalization. On the other hand, the rain cannot show a trace that it is going to rain, since it is impossible for us to see what the rain is doing inside the cloud.²¹

In sum, the two readings associated with *-kake*, ‘be about to’ and ‘halfway’ correspond to which coverage of the eventuality the cognizer refers to (in Talmy’s (1996) term, which half is ‘windowed’ or in Langacker’s (1987) term, which half is ‘profiled’); either the first half, or the second half. It furthermore corresponds to which participant role the cognizer made reference to; the actor, the undergoer, or something else. When the phase associated with each participant role is perceptually segmentable (e.g., in the event of eating a banana, the actor’s phase ‘attempting to peal the banana’ is perceived to be saliently distinct from the undergoer’s phase ‘the banana’s being half-consumed’), associating the number of ‘readings’ with the component of logical structure seems non-problematic. Otherwise, it poses a problem as we saw in the case of ‘put’ in (61).

Irrespective of which coverage of the eventuality or which participant role the cognizer

²¹ Some speakers do not seem to have this restriction. The following example was found in Kodama (1998b: 184 *sic*).

- | | |
|----------|--------------------------|
| Ame ga | furi+kak-e-ta |
| rain Nom | fall+be about to-vt-PAST |

makes reference to, the temporal point *-kake* refers to must be a single point in the sequence of the event.

The following lexical entry is proposed for *-kake*:

- (72) *-kake* : **about.to_** (*x*), where *x* is the LS of V1 [*x*=-static]

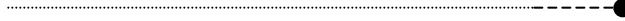
Summing up, this section has shown that the intransitive *-kakar* and the transitive *-kake* are both instances of core subordination. While *-kake* can be combined with any non-state Aktionsart classes, *-kakar* is further constrained to co-occur with non-static [-agent] V1. This section also explored the meaning of *-kake*. It argued that *-kake* marks a temporal point prior to the onset of an atelic phase, either a dynamic event or a resultative state and that the previously distinguished two phases *sidoottai* (the ‘halfway’ phase) and *syogentai* (the ‘be about to’ phase) mirror what coverage of the eventuality the cognizer refers to, the first half or the second half, along the temporal progression; and furthermore, the two phases reflect which participant role the cognizer chose as the cognitive anchoring point: actor, undergoer or something else.

6.7. Summary

This chapter examined the logical structures and the juncture-nexus type of phase verbs. It was proposed that phase verbs enter into two types of constructions: nuclear cosubordination and core subordination. The distribution of phase verbs is summarized in Figure 6.7, according to the levels of the juncture.

‘It was about to rain [The first drops of rain began to fall].’

-*kake*_{CORE} ‘hook_{tran}(be.about to)’
-*kakar*_{CORE} ‘hook_{inran}(be.about to)’



Pre-inceptive	Inceptive	Middle	Final
CORE	- <i>hazime</i> _{CORE} ‘begin _{tran} ’ - <i>das</i> _{CORE} ‘let exit _{tran} (begin)’	- <i>tuzuke</i> _{CORE} ‘continue _{tran} ’	Ø
NUC	- <i>hazime</i> _{NUC} ‘begin _{tran} ’	- <i>tuzuke</i> _{NUC} ‘continue _{tran} ’	- <i>owar</i> _{NUC} ‘finish _{(in)tran} ’ - <i>owe</i> _{NUC} ‘finish _{tran} ’

Figure 6.7: The schema of phase verbs

The following points are significant: (i) If the meaning of a phase verb is bleached, the V2 always appears as a core-level phase verb (*das*_{CORE} ‘let exit_{tran} (begin)’, -*kake*_{CORE} ‘hook_{tran}(be.about to)’, -*kakar*_{CORE} ‘hook_{inran}(be.about to)’); (ii) nuclear-level phase verbs must be transitive and retain their main sense as an independent verb (-*hazime*_{NUC} ‘begin_{tran}’, -*tuzuke*_{NUC} ‘continue_{tran}’, -*owar*_{NUC} ‘finish_{(in)tran}’, and -*owe*_{NUC} ‘finish_{tran}’); (iii) all core-level phase verbs are transitive except for -*kakar*_{CORE} ‘hook_{inran}(be.about to)’; (iv) Japanese lacks a compound verb that expresses the final phase of a situation by means of a core-level juncture; (v) Japanese has two ways to code the inceptive phase; a situation coming into existence punctually with -*das*_{CORE} ‘let exit_{tran} (begin)’, and non-punctually with -*hazime*_{NUC} ‘begin_{tran}’; (vi) the aspectual requirements differ depending on the phase — the verbs that mark the inceptive and the middle phases (-*hazime*, -*das*, -*tuzuke*) require the situation to be atelic or unbounded, whereas the verbs of the final phase

require that the situation to be bounded — *-kake*, which cannot be characterized in terms of a particular phase, requires that the situation consists of a single event (not iterated events); (vii) the traditional grouping of *-kake* as a verb that marks the inceptive phase (e.g., Teramura 1984) seems inappropriate, since it codes a temporal point which has not yet reached the upcoming onset of the atelic phase, which may not necessarily fall within the inceptive phase of the entire sequence of the event.

The discussion of syntactic compounds concludes with this chapter. The next chapter turns to lexical compounds.

CHAPTER 7

Lexical Compound Verbs

This chapter discusses compound verbs that have been treated as syntactic in the previous literature. To highlight the criteria of lexical phenomena, RRG posits a process to be lexical if it affects the assignment of macroroles to the arguments in the LS or any prerequisite operations to make such an assignment possible. This includes (i) a process that alters the argument structure of the predicate (e.g., a change in valence of the verb); (ii) a process that alters the Aktionsart class (e.g., from achievement to state); (iii) a process that alters the logical structure of the predicate (e.g., a change of meaning); and (iv) a process that changes the canonical assignment of the arguments of the logical structure to the actor or undergoer (macroroles). In addition, any phenomenon that is subject to idiosyncrasy is claimed to be lexical.

The verbs which we examine in this chapter are: (a) the means-result compounds (e.g., *osi-aker* push-open ‘open by pushing’; *tataki-tubus* hit-crush ‘crush by hitting’); (b) *-kir* ‘cut (completely)’; and (c) *-aw* ‘fit/match (distributively)’. They are discussed in this order.

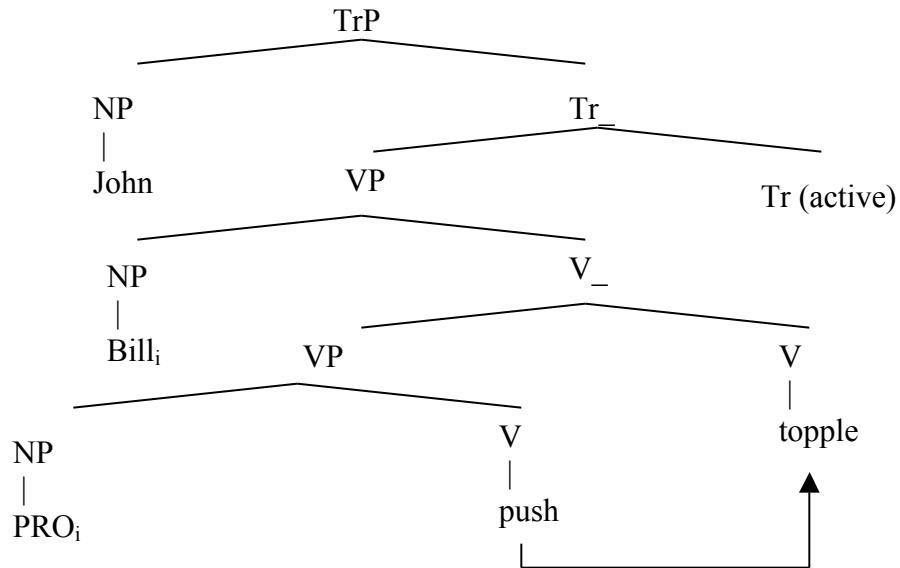
7.1. The means-result V-Vs

The compound of means-result V-Vs refer to those such as (1), where V1 denotes a means and V2 denotes a resultative event which involves a change of state.

- (1) a. Taroo ga aki-kan o nigiri-tubusi-ta
Taro NOM empty-can ACC squeeze-crush-PST
'Taro crushed the empty can by squeezing.'
- b. Hanako ga kusa o musiri-tot-ta
Hanako NOM grass ACC pluck-remove-PST
'Hanako removed the grass by plucking.'

These compound verbs are classified as lexical in Kageyama (1989, 1993, 1999), Kageyama and Yumoto (1997), Matsumoto (1992, 1996, 1998) and Yumoto (1996). Nishiyama (1998), on the other hand, claims that they are formed syntactically, on the basis of their analogous behavior to the serial verb constructions in a language such as Yoruba. According to Nishiyama (1998), Japanese V-V compounds are analogous to serial verb constructions in that (i) they consist of one subject, can have one tense, and are not overtly linked by a marker of coordination or subordination; and (ii) the morphological realizations of the events are iconic to the sequence of the events, suggesting that the external argument is realized within Tr(ansitivity)P, namely, within structure like (2)(Nishiyama 1998: 185, for a sentence *John ga Bill o osi-taosi-ta* 'John toppled Bill by pushing him.').

(2)



In RRG terms, the fact that a predication element takes one subject with one tense can only be interpreted that its nexus-juncture type is a core juncture or tighter (including a lexical predicate) and the presence or absence of a linker to connect the two predicates alone does not specify the juncture-nexus type. Furthermore, the point that the iconic sequentiality of events may present a semantic analogy between Japanese means-result compounds and some of the serial verb constructions is independent of how languages manifest such events morphosyntactically.

Contrary to Nishiyama's (1998) claim, formation of the means-result combinations must be a lexical process for the following reasons. First, the means-result V-V cannot take -(s)ase 'cause' in between, as exemplified in (3) and (4).

- (3) a. osi-taosu push-topple 'push down'
 b. * os-ase-taosu push-CAUS-topple
 (intended) 'make fall by making someone push'
 c. osi-taos-aseru push-topple CAUS
 'make one push down something.'

(4)	a.	naguri-korosu	beat-kill	'kill someone by beating him/her up'
	b.	* nagur-ase-korosu	beat-CAUS-kill	(intended) 'kill by making someone beat'
	c.	naguri-koros-aseru	beat-kill-CAUS	'make one beat someone to death'

-(*S*)*ase* 'cause' forms a nuclear coordinate juncture with the base element (See Chapter 4). The inability to place it between the means-result V1 and V2 (as in (b)), as opposed to its ability to place it outside of the compound (as in the (c)), shows that V1-V2 together forms a nucleus. This in turn means that the means-result V1-V2 forms either a complex nucleus (i.e., nuclear cosubordination), since -(*s*)*ase* has scope over the entire unit of *naguri-korosu*, or a single nucleus made up with a lexical compound.

Secondly, the means-result compounds are subject to semantic idiosyncrasies. The examples in (5) show that the combinatory possibilities for the means-result V1-V2s are fairly unpredictable.

(5)	a.	osi-akeru	push-open	'open by pushing'
	a_.	? tigiri-akeru	tear-open	'open by tearing'
	b.	tataki-waru	beat-break	'break it by beating it'
	b_.	? otosi-waru	drop-break	'break it by dropping it'
	c.	keri-ireru	kick-let.enter	'let enter by kicking'
	c_.	? keri-dasu	kick-let.exit	'let exit by kicking'

Example (5a/a_{_}) shows that the opening activity can be expressed by a V-V when the means event is pushing but not tearing. Example (5b/b_{_}) shows that breaking event can be expressed by beating something up but not by dropping it. Example (5c/c_{_}) shows that the compound has a combination which expresses kicking something in but not kicking something out.

Moreover, the following examples in (6) show that the meaning of some means-result compounds is not obtained compositionally.

- (6) a. hiki-yoseru pull-gather ‘gather by pulling toward oneself/
attract’
- b. tataki-okosu beat-wake.up ‘wake one up when he is sound sleep/
*wake one up by beating him up’

The compound in (6a) illustrates that it has both a literal sense ‘gather by pulling toward oneself’ and an abstract sense of ‘attracting’. Example (6b) originally means *to wake up someone by banging on the door of his house* but is extended to mean a situation where *one is awoken suddenly in one’s sound sleep*. These examples show that the meanings of the means-result compounds are often associated with a special meaning, which cannot be predicted from the meaning of the components. Nishiyama (1998) notices similar idiosyncratic characteristics among the means-result compounds, but he considers that idiosyncrasy cannot be used as an argument against syntactic analysis. However, from the criteria laid out at the beginning of Chapter 4, these compounds that are subject to unpredictability and non-compositionality must be listed in the lexicon. Furthermore, there is no other independent evidence to indicate that the means-result compounds are syntactic. Hence, I conclude that the Japanese means-result compounds are lexical.

It is worth pointing out that there is a study that examined the juncture-nexus type of compound verbs in Mandarin (Hansell 1993), suggesting that the process of V-V compounding is syntactic. Hansell (1993) concludes that Mandarin V-Vs (which express a similar concept to Japanese means-result compounds) are an instance of nuclear cosubordination. While Hansell’s arguments are convincing, his arguments cannot be adopted into the analysis of Japanese means-result V-Vs.

Consider the examples of Mandarin V-Vs from Hansell (1993: 203, 206).

- (7) a. T_ qí_o pò le yí ge fàn_w_n
 he hit break ASP one CLF rice bowl
 'He broke (by hitting) a rice bowl.'
- b. W_ kàn d_ng le nèi b_n sh_
 I read understand ASP that CLF book
 'I understood (by way of reading) that book.'
- c. W_ kàn de d_ng nèi b_n sh_
 I read PART understand that CLF book
 'I can understood that book (by way of reading).'
- d. W_ kàn bu d_ng nèi b_n sh_
 I read NEG understand that CLF book
 'I can't understood that book (by way of reading).'

There are two differences between the Mandarin V-Vs and the Japanese means-result V-Vs. The first is that the combinatory possibility of valence is less constrained in Mandarin. In (7a), V1 *qi_o* 'hit' is transitive, whereas V2 *pò* 'break' is intransitive. This shows that the Mandarin V-Vs fully allows the transitive-intransitive combination. On the other hand, the Japanese means-result V-Vs occur in the matched valence as shown in (8).

- (8) a. tataki-kowasu beat_{tran}-break_{tran} 'break by beating it'
 a_. * tataki-kowareru beat_{tran}-be.broken_{intran}
- b. hineri-tubusu pinch_{tran}-crush_{tran} 'crush with one's fingers'
 b_. * hineri-tubureru pinch_{tran}-be.crushed_{intran}
- c. sasi-korosu stab_{tran}-kill_{tran} 'stab one to death'
 c_. * sasi-sinu stab_{tran}die_{intran}
- d. hagare-otiru come.off_{intran}-drop_{intran} 'come off'
 d_. * hagasi-otiru peel_{tran}-drop_{intran}

Second, Mandarin V-Vs may take a particle *bu* or *de* in between the two elements, as illustrated in (7c) and (7d) in contrast to its plain counterpart in (7b). According to

Hansen, *bu* marks the impossibility of the occurrence of the event denoted by V1-V2, whereas *de* marks the possibility of it. In contrast, the Japanese means-result compounds do not allow any intervening element between V1 and V2.

These two points show that the Mandarin and Japanese V-Vs do not form a unitary class in their morphosyntactic behaviors. Thus, the argument that the Mandarin V-V is nuclear cosubordination does not entail that its semantic analogue of V-V in Japanese is also a case of nuclear cosubordination.

In conclusion, Japanese means-result compound verbs must be lexical compounds due to their tight restrictions on valence and their semantic restrictions in combining the two components.

7.2. -*Kir* ‘cut (completely)’

Kageyama (1993) and Matsumoto (1992, 1996) independently analyze compounds with *-kir* ‘cut (completely)’ as syntactic. This section argues that they are lexical, based on the observation that compounding *-kir* with the base verb affects the meaning of the base verb.

-Kir literally means to ‘cut’ as in (9).

- (9) a. hootyoo de yasai o kit-ta
knife by vegetable ACC cut-PST
'I cut the vegetable with the knife.'
- b. kami de yubi o kit-ta
paper by finger ACC cut-PST
'I cut my finger with the paper.'

-Kir in a compound as a V2 expresses the sense of ‘completion’ as in (10).

- (10) a. hon o yomi-kit-ta
 book ACC read-cut (completely)-PST
 'I read the book completely (till the end).'
- b. karada ga hie-kit-te-i-ru
 body NOM become.cold-cut (completely)-LINK-exist-NPST
 'My body is completely cold.'

-*Kir* in (10a) indicates that the book is read till the end, and in (10b) complete coldness is expressed by -*kir*.

Kindaichi (1950[1976]) notices that -*kir* is incompatible with state verbs and that when it occurs with continuation verbs (equivalent of activity and non-static causative verbs), -*kir* yields the interpretation of *zenbu* 'all' and *kanzen-ni* 'completely', and with the class of instantaneous verbs (equivalent of achievements/accomplishments), it yields the interpretation of *zyuubun-ni* 'sufficiently'. Himeno (1980:1999) renames Kindaichi's distinction as *kansui* 'completion' and *kyokudo* 'extreme degree'. This distinction, however, seems unnecessary, since in both cases, -*kir* expresses that a change of state has taken place to its complete degree. To elaborate more on this point, let us first examine with which Aktionsart classes -*kir* is compatible.

The examples in (11) show that -*kir* is compatible with achievement, accomplishment, causative achievement, causative accomplishment and active accomplishment.

- (11) a. komari-kit-te-i-ru [achievement]
 become.feel.troubled-cut (completely)-LINK-exist
 'She is completely at a loss.'
- b. zerii ga katamari-kit-ta [accomplishment]
 jelly NOM become.solid- cut (completely)-PST
 'The jelly became set completely.'

- c. satoo o uri-kit-ta [causative achievement]
sugar ACC sell-cut (completely)-PST
'I sold all the sugar.'
- d. tyokoreeto o tokasi-kit-ta [causative accomplishment]
chocolate ACC melt-cut (completely)-PST
'I melted the chocolate completely.'
- e. sono hon o yomi-kit-ta [active accomplishment]
that book ACC read-cut (completely)-PST
'I read the book completely.'

The commonality of the Aktionsart classes in (11) is that they are all [+telic]. This indicates that the meaning of *-kir* is concerned with a change of state. When *-kir* is added to a telic verb, it expresses that the change of state is complete. If the event denotes a type of scale, *-kir* ensures that it is at its end point of the scale, as shown in (12).

- (12) a. zerii ga sakki yori katamat-ta
jelly NOM just.now than become.solid-PST
'The jelly became more set than just now.'
- b. zerii ga katamari-kit-ta
jelly NOM become.solid-cut(completely)-PST
'The jelly became set completely.'
- c. * zerii ga sakki yori katamari-kit-ta
jelly NOM just.now than become.solid-PST
'The jelly became more completely set than just now.'

The non-compound accomplishment verb such as *katamar-* 'become solid' is vague as to what stage of solidity it denotes. Accordingly, it can occur with a word of comparison *yori* as in (12a). However, when it occurs with *-kir* as in (12b), it is disambiguated in that the event is at the very end of the solidity state, and hence it cannot occur with a word of comparison as in (12c). If the event involves quantity, *-kir* ensures that the action is performed over the entire quantity in the sense of consuming completely, creating

something completely, or reaching the goal completely. Example (13) shows an example for each.

- (13) a. go-kiro no okome o hutuka de tabe-kit-ta
 five-kilo of rice ACC two.day in eat-cut (completely)-PST
 ‘We ate up the five-kilo of rice in two days.’ [consumption]
- b. hon o hutu-ka de kaki-kit-ta
 book ACC two-day in write-cut (completely)-PST
 ‘I wrote the book completely in two days.’ [creation]
- c. miti o ip-pun de watari-kit-ta
 road ACC one-minute in cross-cut (completely)-PST
 ‘I crossed the road completely in one minute.’ [reached goal]

On the other hand, sentences in (14) show that *-kir* is incompatible with state, activity, and causative activity, which in turn shows that *-kir* is incompatible with atelic verbs.

- (14) a. * hon ga ari-kiru [state]
 book NOM exist-cut (completely)
 ‘A book completely exists.’
- b. * denwa ga nari-kit-ta [activity]
 telephone NOM ring-cut (completely)-PST
 ‘The telephone completely rang.’
- c. * kazaguruma o mawasi-kit-ta [causative activity]
 pinwheel ACC spin-cut(completely)-PST
 ‘I completely spun the pinwheel.’

Kindaichi (1950[1976]) says that *-kir* is compatible with a ‘continuation verb’, which is an analogue of an activity or a non-static causative verb. However, an activity verb proper is incompatible with *-kir*, as shown in (14b). What Kindaichi meant by ‘continuation verbs’ ought to be active accomplishment verbs, since the compound can occur with an *in* phrase but not with a *for* phrase, as shown in (15).

- (15) a. ni-zi-kan hasit-ta [activity]
 two-hours-for run-PST
 'I ran for two hours.'
- b. marason koosu o ni-zikan de hasiri-kit-ta [active accomplishment]
 marathon course P two-hours in run-cut (completely)-PST
 'We ran the marathon course in two hours completely.'
- c. * marason koosu o ni-zi-kan hasiri-kit-ta [activity]
 marathon course P two-hours-for run-cut (completely)-PST
 'We ran the marathon course for two hours completely.'

The contrast in (15b) and (15c) shows that suffixing *-kir* changes an activity verb to an active accomplishment verb. Alternation of Aktionsart classes such as this case is a lexical process in RRG.

The semantic effect of *-kir* can be informally stated as in (16).

- (16) The lexical rule for *-kir*:

a [+telic] verb + *-kir* →

Interpret that the event has reached the very end point of the change of state

7.3. *-Aw* ‘fit/match (distributively)’²²

7.3.1. Introduction

Aw- as an independent verb is an intransitive verb, which means *to fit, match* or *agree*, as shown in (17).

- (17) a. kono huku wa watasi ni awa-nai
 this clothes TOP I DAT fit-NEG
 'This dress does not fit me.'

²² According to a dictionary for old Japanese (Kitahara 1987), *-aw* has two major senses: ‘fit’ and ‘meet’, but the meaning of distribution in question is listed under the heading of the ‘fit’ sense. Previous literature (e.g., Nishigauchi 1992) uses ‘meet’ as the gloss for *-aw*. However, it will be glossed as ‘fit’ following the classification of this dictionary. Furthermore, distinct Chinese characters are employed to denote the ‘fit’ and the ‘meet’ senses in modern Japanese. The character for *-aw* corresponds to the one for ‘fit’. Therefore, it seems more appropriate to gloss it with ‘fit’.

- b. kono kutu to kaban wa iro ga at-te-i-ru
 this shoe COM bag TOP color NOM match-LINK-exist-NPST
 'As for this shoe and the bag, they match in color.'
- c. Taroo to Hanako wa iken ga awa-nai
 Taro COM Hanako TOP opinion NOM agree-NEG
 'As for Taro and Hanako, they don't agree on an opinion.'

-Aw as a V2 in a compound has been characterized as expressing reciprocity in previous literature. Sugioka (1985: 191), for example, states that -aw 'expresses the reciprocal action between plural (usually two) agents', referring to sentences such as (18).

- (18) a. Taroo ga Hanako o hagemasi-ta
 Taro NOM Hanako ACC cheer.up-PST
 'Taro cheered up Hanako.'
- b. Taroo to Hanako ga hagemasi-at-ta
 Taro NOM Hanako ACC cheer.up-fit-PST
 'Taro and Hanako cheered up each other.'

The example in (18a) is a simple sentence without -aw. The sentence in (18b) shows that -aw indicates that the action of cheering up is performed between the two agents toward each other. Sugioka (1985) argues that -aw is a suffix that attaches to a V_ phrase and the base verb must be a transitive verb. On the other hand, Kageyama (1993) analyzes -aw as a control type verb, taking a VP as its complement. Kageyama (1993: 157) also considers that the V1 has to denote an event such that a participant performs an action against his partner. For example, in *zyare-* 'play', one participant performs a playing action against his partner; and hence, *zyare-aw* 'play at each other' is acceptable. On the other hand, in the event of *abare-* 'act violently' or *sawag-* 'make noise', the participant does not require a partner; and therefore, **abare-aw* and **sawagi-aw* are unacceptable.

Contrary to Kageyama, Nishigauchi (1992) argues that *-aw* is a raising type predicate and that the semantic function of *-aw* is ‘distribution’. He points out that it has both a reciprocal use such as (19) and a non-reciprocal use such as (20).

- (19) (Baa-de) otoko-tati ga naguri-aw-te iru
 bar in man Pl Nom hit-AW be
 ‘Men are hitting each other (in the bar).’ (Nishigauchi 1992: 158)

- (20) John to Bill ga Mary o syootai-si-aw-ta
 and Nom Acc invite do AW Past
 ‘John and Bill invited Mary alternately.’ (Nishigauchi 1992: 174)

The sentence (19) depicts a scene where pairs of men are hitting each other reciprocally, whereas (20) depicts a scene where the inviting action is performed between *John* and *Bill* alternately but not reciprocally.

Himeno (1999) also recognizes both the reciprocal and non-reciprocal use of *-aw*, the latter of which she further divides into ‘collaborative action’ and ‘parallel action’, referring to examples such as (21).

- (21) a. hutari wa sinbun o yomi-at-ta (collaborative action)
 two.people TOP newspaper ACC read-AW-PST
 ‘The two people read the newspaper alternately.’
- b. zen-in ga namida o nagasi-at-ta (parallel action)
 all NOM tear ACC pour-AW-PST
 ‘All the people shed tears (among themselves).’

The basic distinction between the two uses is that there is a common entity that is acted on by a group of entities in the former, whereas there is no such common entity in the latter.

Himeno (1999) employs the term ‘reciprocal’ on purely semantic grounds, referring to an event where two participants are acting against each other in physical contact (e.g., *butukar-* ‘bump’; *dak-* ‘hold’) or psychological relation (e.g., *ais-* ‘love’;

nikum- ‘hate’). On the other hand, Nishigauchi (1992) uses ‘reciprocal’ on syntactic grounds, referring to a construction that involves a ‘gap’. By ‘gap’, he means a sentence like (22a), where the number of the case-marked arguments is one NP less than its non-reciprocal counterpart in (22b).

- (22) a. Zyon to Marii ga naguri-at-ta
 John COM Mary NOM hit-fit(distr.)-PST
 ‘John and Mary hit (each other).’
- b. Zyon ga Marii o nagut-ta
 John NOM Mary ACC hit-PST
 ‘John hit Mary.’
- c. * Zyon to Marii ga nagut-ta
 John COM Mary NOM hit-PST
 ‘John and Mary hit.’

Example (22b) shows that *nagur-* ‘hit’ is S-transitive since a sentence with no ACC-marked NP as in (22c) is ungrammatical. However, when the base verb is compounded by *-aw*, the sentence without the ACC-marked NP becomes grammatical as in (22a).

We will adopt Nishigauchi’s (1992) distinction between reciprocal and non-reciprocal. However, the term non-reciprocal is misleading in the sense that it can refer to a reciprocal action as in (23), where the sentence contains an anaphor *otagai* ‘each other’, yielding the reciprocal interpretation, though the structural pattern is non-reciprocal according to Nishigauchi’s classification.

- (23) Zyon to Marii ga otagai o naguri-at-ta
 John COM Mary NOM each.other ACC hit-fit(distr.)-PST
 ‘John and Mary hit each other.’

I will call Nishigauchi’s reciprocal ‘V1 with decreased valence’, and Nishigauchi’s non-reciprocal ‘V1 with unaffected valence’.

In this section, I argue that the formation of verb-*aw* is lexical on the basis of the observation that suffixing -*aw* to the base verb affects the interpretation of the variables in the logical structure of the base verb. I also argue that the fundamental semantic function of -*aw* is ‘distribution’.

7.3.2. V1 with unaffected valence

The goal of this subsection is to examine how the assignment of macroroles is determined when combining -*aw* does not affect the valence of V1. To achieve this goal, three questions are considered: (i) what kinds of verbs -*aw* can be compounded with; (ii) what is the meaning of -*aw*; and (iii) what restrictions are imposed on V1 by being compounded with -*aw*. The examples in (24) are relevant to these issues.

- (24) a. guuzen ga kasanari-at-ta [achievement]
chance NOM overlap-fit(distrib.)-PST
lit. ‘Chances overlapped each other.’ (‘It was purely by chance.’)
- b. suguni kokoro ga tuuzi-at-ta [achievement]
soon heart NOM connect-fit(distrib.)-PST
lit. ‘Our hearts immediately connected to each other.’
(‘We immediately understood each other.’)
- c. kodomo-tati ga taiko o tataki-at-ta [activity]
child-PL NOM drum ACC beat-fit(distrib.)-PST
‘The children beat the drum taking turns.’
- d. (keekan ga) otoko no ninsoo to huku o
policeman NOM male GEN looks and clothes ACC
kakunin-si, unazuki-at-ta [activity]
confirmation-do nod-fit(distrib.)-PST
‘(About three policemen came in and they) checked the man’s face and the clothes, and the policemen nodded respectively.’
(Text: Hosi)

The first question is what kind of verb *-aw* can be compounded with. The examples in (24) show three points. First, *-aw* can be compounded with both intransitive and transitive verbs. *Kasanar-* ‘overlap’ (24a) and *tuuzi-* ‘be connected to’ (24b) are examples of intransitive verbs and *tatak-* ‘beat’ (24c) and *mawas-* ‘spin’ (24g) are examples of transitive verbs. Second, the sole argument of the intransitive verb can be inanimate (e.g., (24a) and (24b)), or animate (e.g., (24d) and (24e)). Third, the base verb can be an activity verb (e.g., *unazuk-* ‘nod’ (24d) and *waraw-* ‘laugh’ (24e)) or a non-activity verb (e.g., *kasanar-* ‘overlap’ (24a) and *tuuzi-* ‘be connected to’ (24b) are achievement) including causatives (e.g., *yose-* (24h) causative accomplishment) as long as it is not a state (e.g., **i-aw* (24f)).

The second question is the meaning of *-aw*. As the English glosses in the examples in (24) indicate, the compounds with *-aw* are translated with an expression such as *respectively*, *among themselves*, or *taking turns*. The commonality among the example sentences is that: (i) they involve plural participants (e.g., *chances* (24a), *hearts* (24b), *children* (24c), *policemen* (24d), and *girls* (24e) *mine workers* (24h)) and they can be realized either in the plural form or a conjoined form (24g); and that (ii) there involves a sense of interactiveness. By *interactiveness*, I mean a situation where the participants act toward a common goal or with shared knowledge in such a way that one's action triggers the other's actions as if they are chain-reactions. For example, in (24e), each girl is laughing interactively, perhaps by looking at each other, and by confirming with each other that the office clerk's (the person they are laughing at) action is amusing. Similarly in (22c), the mineworkers pull their bodies closer to each other so that they can confirm that every member is safe. It is not the case that each action occurred in isolation but the pulling-the-body action by each individual is repeated several times in reaction to the other's actions. If the participants are inanimate, the *interactiveness* is expressed in terms of the direction of action. Let us consider the case of *overlapping* in (25).

- (25) a. te ga kasanari-at-ta
 hand NOM overlap-fit(distrib.)-PST
 ‘Hands are together, one on top of the other.’
- b. te ga kasanat-ta
 hand NOM overlap-PST
 ‘Hands are one on top of the other.’

Note that the same event as (25a) can be expressed by the plain verb without *-aw* as in (25b). The example in (25b) is neutral as to how the overlapping event took place. It simply conveys the result that the hands are on top of each other. On the other hand,

(25a) expresses that the hand-approaching was performed from both directions, and as a result, the hands are together, one on top of the other. Thus, *-aw* specifies the manner by which they arrived at the resulting state. In essence, the meaning of *-aw* can be informally stated as in (26).

- (26) *-Aw* functions to distribute the action denoted by the base verb among the plural participants, ensuring that every member is participating in the event interactively.

The third question is what restrictions *-aw* imposes on V1. From the meaning of (26), it is clear that *-aw* requires plural participants, as we can readily illustrate that a sentence with a single entity is unacceptable, as shown in (27).

- (27) * Kazue ga warai-at-ta
 Kazue NOM laugh- fit(distrib.)-PST
 ‘Kazue laughed with someone.’

The question now is which argument must consist of plural members. Observe (27).

- (27) a. Kazue to Zyun ga warai-at-ta
 Kazue COM Jun NOM laugh- fit(distrib.)-PST
 ‘Kazue and Jun laughed respectively.’
do_(X, [laugh_(X)]), where X=Kazue & Zyun
- b. happa ga kasanari-at-te-iru
 leave NOM overlap-fit(distrib.)-LINK-exist
 ‘The leaves are on top of each other.’
 INGR **overlapped_**(X), where X=happa
- c. kodomo-tati ga keeki o yaki-at-ta
 child-PL NOM cake ACC bake-fit(distrib.)-PST
 ‘The children baked the cake(s), taking turns.’
 [**do_**(X, Ø)] CAUSE [BECOME **baked_**(Y)]
 where X=kodomo-tati, Y=keeki

Example (27) shows that the argument that must consist of plural members is: the argument of (**do_**(X, ...)) in (27a) and (27c), and the argument of a state predicate in (27b). From this, we can make a generalization that *-aw* requires that the referent of the

highest-ranking macrorole be plural. Notice that in (27c), the number of *cakes* can be singular or plural, suggesting that the plurality of the referent of the undergoer is independent of the presence or absence of *-aw* (i.e., *keeki o yaku* ‘to bake (a) cake’ alone is ambiguous with respect to the number of cakes). Notice also that the composition of the LS of the base verb is not affected by the presence of *-aw*; for example, *waraw-* ‘laugh’ and *warai-aw* ‘laugh-aw’ are both represented by the LS, **do**_{_}(x, [laugh_{_}(x)]), or *kasanar-* ‘overlap’ and *kasanari-aw* ‘overlap-aw’ are both represented by INGR **overlapped**_{_}(x).

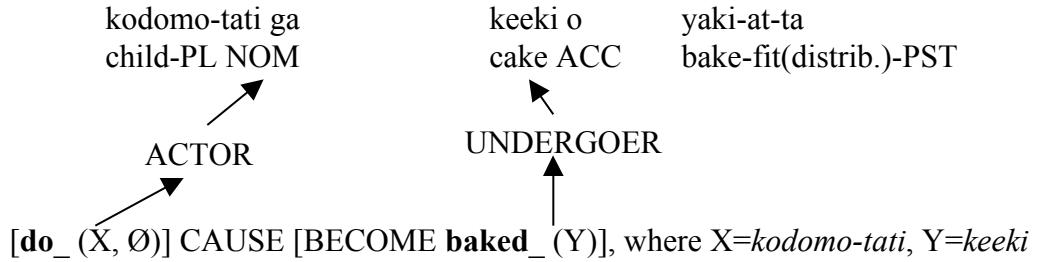
The observations made in this section can be summarized as (28).

- (28) *-Aw* requires the referent of the highest-ranking macrorole of the base verb to be plural.

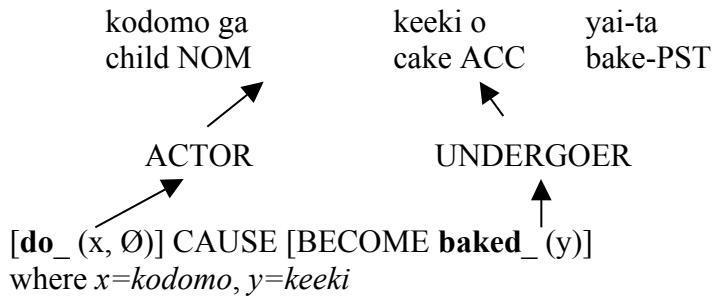
In brief, *-aw* affects the interpretation of the *x* variable in the LS. To indicate that the LS under consideration represents the meaning of V1 with *-aw* as opposed to the meaning of a plain verb, I will represent the variables for verb-*aw* using the upper case as in: for example, *warai-aw*: **do**_{_}(X, [laugh_{_}(X)]), as opposed to *waraw*: **do**_{_}(x, [laugh_{_}(x)]).

We finally consider the assignment of macroroles. Compare (29) and (30). The representation in (29) shows the assignment of macroroles for the sentence in (27c), and the representation in (30) is for the plain verb counterpart.

(29) ‘The children baked the cake(s), taking turns.’



(30) ‘A child baked a cake.’



As it can be seen in the mirror images of (29) and (30), the macrorole assignment is normal; namely, it is precisely the same as the one for the base verb. This shows that *-aw* does not affect the macrorole assignment. It affects only the interpretation of the *x* variable, the highest ranking macrorole.

7.3.3. V1 with decreased valence

We now turn to the discussion of *-aw* with a V1 which has decreased valence.

Let us first remind ourselves that it refers to a construction such as (31c), which contains one NP less than the plain verb counterpart in (31a).

- (31) a. Hanako ga Taroo o nagut-ta
Hanako NOM Taro ACC hit-PST
‘Hanako hit Taro.’

- b. * Hanako (to Taroo) ga nagut-ta
 Hanako (COM Taro) NOM hit-PST
 ‘Hanako (and Taro) hit.’
- c. Hanako to Taroo ga naguri-at-ta
 Hanako COM Taro NOM hit-fit(distrib)-PST
 ‘Hanako and Taro hit (each other).’

Example (31a) shows that the verb *nagur-* is transitive as can be seen in the unacceptability of (31b), which contains a single NOM-marked argument. When it occurs with *-aw*, the sentence becomes acceptable just with the NOM-marked argument as in (31c), indicating that the base verb is detransitivized being compounded by *-aw*.

The goal of this subsection is to examine whether the observations we made in the previous section, with (26) and (28), can be maintained for *-aw* with a V1 whose valence is decreased by one. Before we do so, it is necessary to examine which argument is omitted, and for which verbs valence-decreasing is possible, for not all the V1s allow it.

We consider the first point, which argument can be omitted (i.e., which argument can be the target of valence-decreasing operation). Note that the omitted argument is the undergoer in (31c). The examples in (32) show that the omitted argument can be a non-macrorole argument.

- (32) a. turukusa ga ki ni karamat-te-iru
 vine NOM tree DAT be.entwined-LINK-exist
 ‘The vine is entwined around the tree.’
- b. turukusa ga karamari-at-te-iru
 vine NOM be.entwined-fit(distr.)-LINK-exist
 ‘The vines are entwined with each other.’

The verb *karamar-* ‘be entwined’ is an intransitive verb whose LS can be represented as INGR **entwined-around**_(x, y). It requires a NOM-marked argument and a DAT-

marked argument as shown in (32a). When it is compounded with *-aw*, the sentence is acceptable just with the NOM-argument as shown in (32b). A comparison between the (32a) and (32b) examples shows that the omitted argument is the DAT-marked argument. The sentences in (33) provide another example, in which the DAT-marked argument is also omitted.

- (33) a. Hanako ga Kazue ni otyuugen o okut-ta
 Hanako NOM Kazue DAT mid-summer.gift ACC send-PST
 ‘Hanako sent Kazue a mid-summer gift.’
- b. Hanako to Kazue ga otyuugen o okuri-at-ta
 Hanako COM Kazue NOM mid-summer.gift ACC send-fit(distr.)-PST
 ‘Hanako and Kazue sent the mid-summer gifts to each other.’

In (33a), the recipient is coded with the DAT case, and this argument can be omitted when *-aw* is compounded with *okur-* ‘send’.

Based on these examples, we can make the following generalizations: (i) suffixing *-aw* decreases the syntactic valence of the base verb by one; and (ii) the omitted argument can be the referent of either the undergoer (cf. (31)) or the non-macrorole core argument (cf. (32) and (33)).

The next question is when or with which base verbs the valence decreasing takes place. I notice that valence decreasing can take place if V1 denotes a scene where one participant (actor) acts on/toward/against the other, and if the former and the latter (distinct referents) can be of the same type.²³ For example, an event of *nagur-* ‘hit’ can

²³ This is only part of the requirement. The semantics of the base verb must be such that the participants can perform the action reciprocally. For example, *kat-* ‘win/defeat’ can take two human participants, as in (a). However, the verb cannot be followed by *-aw*, as shown in (b). This is because winning cannot be reciprocal since when one wins, the other necessarily loses in one game.

(a) Hanako ga Kazue ni kat-ta
 Hanako NOM Kazue DAT defeat-PST
 ‘Hanako defeated Kazue.’

involve two people, where Person₁ (e.g., *Hanako*) acts on Person₂ (e.g., *Taro*) as in (34a); or an event of *karamar-* ‘be entwined’ can involve two entities, where Entity₁ (e.g., *turukusa*₁) acts on Entity₂ (e.g., *turukusa*₂) as in (34b).

- (34) a. Hanako ga Taroo o nagut-ta
 Hanako NOM Taro ACC hit-PST
 ‘Hanako hit Taro.’
- b. turukusa ga turukusa ni karamat-te-iru
 vine NOM vine DAT be.entwined-LINK-exist
 ‘A vine is entwined around a vine.’

On the other hand, in an event of *migak-* ‘polish’, the actor ought to be higher in animacy than the other participant (e.g., *human* vs. *floor* as in (35a)), and the participants cannot be of the same type (e.g., Person₁ and Person₂) as shown in the unacceptability of (35b), which involve two people. Accordingly, the event of *migak-* ‘polish’ cannot be expressed with *-aw* as shown in the unacceptability of (35c), although if we specify what part of the body is polished, the acceptability improves as shown in (35d).

- (35) a. Hanako ga yuka o migai-ta
 Hanako NOM floor ACC polish-PST
 ‘Hanako polished the floor.’
- b. # Hanako ga Taroo o migai-ta
 Hanako NOM Taro ACC polish-PST
 ‘Hanako polished Taro.’
- c. * Hanako to Taroo ga migaki-at-ta
 Hanako COM Taro NOM polish-PST
 ‘Hanako and Taro polished each other.’

(b) * Hanako to Kazue ga kati-at-ta
 Hanako COM Kazue NOM win-fit(dist.)-PST
 ‘Hanako and Kazue defeated each other.’

- d. Hanako to Taroo ga tume o migaki-at-ta
 Hanako COM Taro NOM nails ACC polish-PST
 ‘Hanako and Taro polished each other’s nails.’

Thus, if V1 denotes a scene where one participant acts on/toward/against the other, and if the former and the latter (distinct referents) can be of the same type, the referent of the non-highest-ranking macrorole can be realized as an argument (marked by *to* COM) conjoining to the NOM-marked argument, as shown in (36a). The same scene can be alternatively depicted by employing an anaphor *otagai* ‘each other’ without changing the valence of the base verb, as shown in (36b).

- (36) a. Zyon to Marii ga naguri-at-ta
 John COM Mary NOM hit-fit(distr.)-PST
 ‘John and Mary hit (each other).’
- b. Zyon to Marii ga otagai o naguri-at-ta
 John COM Mary NOM each.other ACC hit-fit(distr.)-PST
 ‘John and Mary hit each other.’

Our next task is to examine whether we can maintain the observations made earlier that suffixing *-aw* does not affect the basic components of the LS but affects the interpretation of the variables of the LS in such a way that the referent of the highest ranking macrorole must consist of plural entities.

We begin by considering the valence of the verb. Valence can be described both syntactically and semantically. Take *nagur-* ‘hit’ as an example. The verb takes NOM-marked and ACC-marked arguments, and hence it is syntactically transitive. Furthermore, since its LS holds two argument slots as in **do**_(x, [**hit**_(x, y)]), it is semantically transitive as well. When this verb is compounded with *-aw*, the syntactic valence is decreased by one, as shown in (37), which has no ACC-marked argument.

- (37) Zyon to Marii ga naguri-at-ta
 John COM Mary NOM hit-fit(distr.)-PST
 ‘John and Mary hit (each other).’

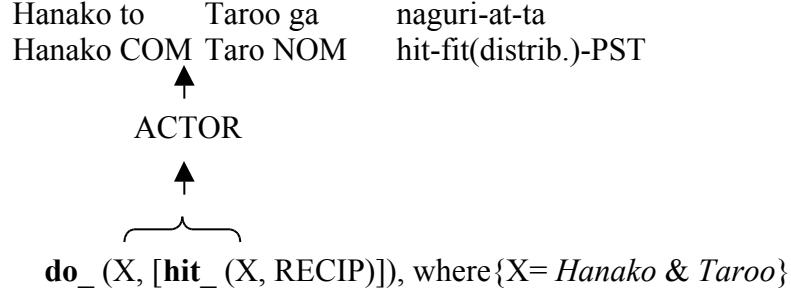
Importantly, this does not mean that the semantic valence is decreased by one. With or without *-aw*, *naguri-* ‘hit’ semantically requires two participants; a hitter and the one being hit. Accordingly, we need to maintain two argument slots for *naguri-aw* as in **do_**(*x*, [**hit_**(*x*, *y*)]). This, however, does not entail that *naguri-aw* is M-transitive. It cannot be M-transitive, since the argument which would have been the undergoer if it had not been *-aw* is not syntactically realized. How can we capture this mismatch between the M-transitivity and the semantic valence?

In observing the morphological reciprocal phenomenon like *-aw*, Van Valin (p.c.) suggests the argument slot must be filled by a reciprocal operator RECIP, as in (38), which indicates that the operator supplies the meaning of the reciprocity.

- (38) **do_**(*x*, [**hit_**(*x*, RECIP)])

I adopt this representation and propose the linking for *naguri-aw* is as in (39).

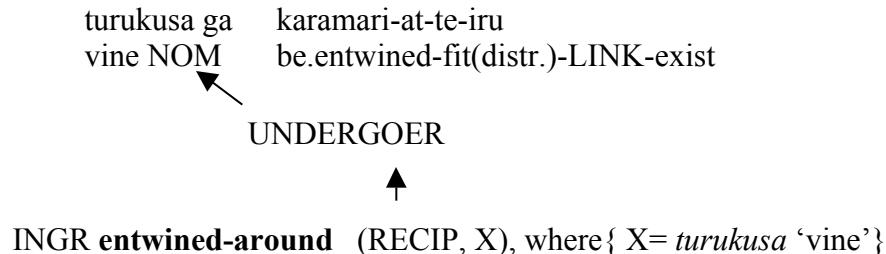
- (39) ‘Hanako and Taroo hit (each other).’



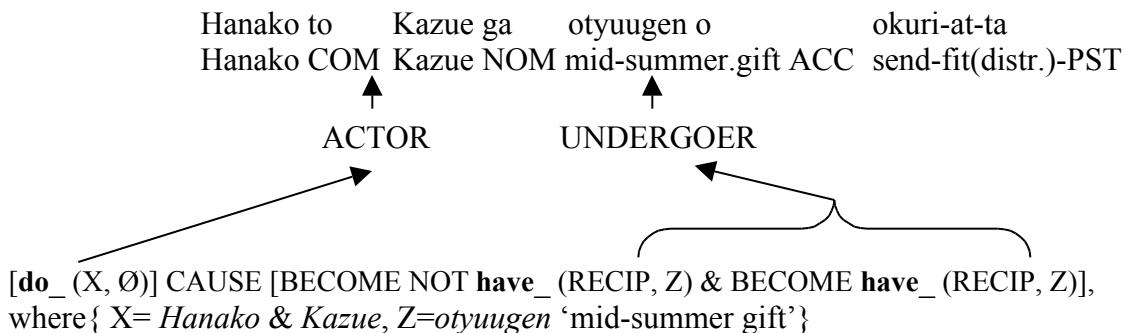
This representation indicates that *naguri-aw* is M-intransitive (having just actor), and RECIP is morphologically realized as *-aw*, which yields the reciprocal interpretation.

The same can be maintained for the compounds which lack the DAT-marked argument, as illustrated in (40) and (41).

- (40) ‘The vines are entwined with each other.’



- (41) ‘Hanako and Kazue sent the mid-summer gifts to each other.’



This representation not only captures the fact about the valence alternation but also is consistent with the Completeness Constraint stated in Van Valin and LaPolla (1997: 325):

- (42) *Completeness Constraint*

All of the arguments explicitly specified in the semantic representation of a sentence must be realized syntactically in the sentence, and all of the referring expressions in the syntactic representation of a sentence must be linked to an argument position in a logical structure in the semantic representation of the sentence.

Since RECIP is not an “argument explicitly specified in the semantic representation,” this argument position can remain unlinked to an argument in the syntactic representation.

Lastly, we can summarize the function of *-aw* as follows:

(43)

- a. *-Aw* does not affect the composition of the LS of the base verb but affects the interpretations of the variables of the LS. It requires the referent of the highest ranking macrorole of the base verb to be plural.
- b. *-Aw* distributes the action denoted by the base verb among all the participants, yielding an interpretation such that the action is performed interactively.
- c. *-Aw* can decrease the number of the core arguments by one. If the referents of the highest ranking macrorole and one of the other core arguments can be of the same kind and they can perform a reciprocal action between them, the latter can be conjoined to the NOM-marked argument, when combined with *-aw*.

In conclusion, *-aw* is a distributive marker which can also function as a reciprocal marker depending on the type of the event. As far as morphosyntactic behavior is concerned, Nishigauchi (1992) posits that the reciprocal *-aw* involves an empty category which enters into a coreference relation with the antecedent, analyzing the process of compounding with *-aw* as syntactic. However, in RRG term, the formation of verb-*aw* cannot be syntactic, since it affects the interpretation of the variables of the LS, and may also affect the valence of the base verb. Ishii (1989: 158) argues that the *-aw* lexically operates “on the argument structure of a verb and prevent[s] the theta role of the object NP from projecting into a syntactic position.” Ishii (*ibid.*) furthermore states that the accusative marked argument that co-occurs with *-aw* is not an argument of the base verb but rather “an adjunct related to the absorbed argument.” My argument follows Ishii in

that *-aw* affects the argument structure of the base verb. However, as we have seen in (32) and (33), repeated as (44) and (45), it is not only the ‘object NP’ that can be omitted but also a dative marked core argument.

- (44) a. turukusa ga ki ni karamat-te-iru
 vine NOM tree DAT be.entwined-LINK-exist
 ‘The vine is entwined around the tree.’
- b. turukusa ga karamari-at-te-iru
 vine NOM be.entwined-fit(distr.)-LINK-exist
- (45) a. Hanako ga Kazue ni otyuugen o okut-ta
 Hanako NOM Kazue DAT mid-summer.gift ACC send-PST
 ‘Hanako send Kazue a mid-summer gift.’
- b. Hanako to Kazue ga otyuugen o okuri-at-ta
 Hanako COM Kazue NOM mid-summer.gift ACC send-fit(distr.)-PST
 ‘Hanako and Kazue send the mid-summer gifts to each other.’

It is not clear how a sentence like (45b) can be accounted for under Ishii’s analysis, which contains an accusative-marked NP but the omitted argument is originally coded with the dative. Ishii’s treatment of the accusative marked argument which occurs with *-aw* seems *ad hoc*.

7.4. Summary

This chapter has presented an analysis of a few lexical compounds which have been analyzed as syntactic previously. The means-result compounds (e.g., *kiri-taosu* cut-fall ‘let something fall by cutting it) are argued to be lexical on the basis of the unpredictability and non-compositionality of the combinations of the two verbal elements. Verb-*kir* ‘cut (completely)’ is also argued to be lexical since it affects the meaning of the base verb. *-Kir* is observed to suffix to a [+telic] verb, yielding the

interpretation that the change of state takes place to its complete degree. Lastly, the compound with *-aw* was examined. It was argued that *-aw* functions to distribute the action of the base verb across the referents of the highest ranking macrorole and that suffixing it affects the interpretations of the variables of the LS.

CHAPTER 8

Conclusion

This dissertation has examined the morphosyntactic structure and logical structures of compound verbs in Japanese, working within the framework of Role and Reference Grammar (Van Valin and LaPolla 1997). It asked three principal questions: (i) ‘what is the transitivity structure of the compound verbs?’; (ii) ‘where does the formation of Japanese compound verb take place, in the lexicon or syntax?’; and if the latter is the case, (iii) ‘what syntactic relations hold between the two component verbs?’

In response to the first question, Chapter 3 examined compound verbs, focusing on their transitivity structure. A quantitative analysis of 1,464 types of compound verbs indicated that approximately 70% of the compound verbs occur with matched transitivity. This in general is consistent with the observation made by Jacobsen (1992), termed ‘transitivity parity’, that two component verbs tend to occur in the transitive-transitive or intransitive-intransitive combination. Chapter 3 also examined the motivation for the transitivity alternation in V2 position. We found clear-cut instances where changing transitivity in V2 position affects the meaning of the compound as a whole or number of participants. Chapter 3 also dealt with maintenance of meaning of a component verb in a compound by comparing Japanese compound verbs with English *-berry* compounds. A

majority of the compounds which consist of two *blue*-type verbs (which maintain the original sense in the compound) turn out to be lexical compounds, with a handful of exceptions (e.g., *-nare* ‘get used to’; *-hazime_{NUC}* ‘begin’; and *-tuzuke_{NUC}* ‘begin’).

To provide an answer to the second question, Chapter 4 laid out the criteria for determining the syntactic and lexical compounds in RRG terms, discussing the diagnostic tests employed in Tagashira (1979), Kageyama (1993), and Matsumoto (1992, 1996). It was concluded that the formation of Japanese compound verbs takes place in both the lexicon and syntax. This corroborates the basic proposal made in Kageyama (1989) and Shibatani and Kageyama (1988) that morphology must have access to both lexicon and syntax in Japanese and that a syntactic entity can serve as the input to the word formation process, for we can obtain a nominal phrase such as (1a), which is derived from the syntactic compound of (1b).

- (1) a. tabe-hazime-kata eat-begin-way ‘how to begin eating’
b. [NUCtabe-hazime]-ru eat-begin ‘begin to eat’

The last three chapters dealt with the third question. Chapter 5 and Chapter 6 examined the juncture-nexus types as well as the logical structures of syntactic compounds. Chapter 5 illustrated that non-phase compounds occur in two types of structures: core cosubordination (e.g., *-nare* ‘-get used to’), and core subordination (e.g., *-sugi* ‘excessively’). Chapter 6 argued that phase verbs occur in two types of structures: nuclear cosubordination (e.g., *-owe* ‘finish_{tran}’) and core subordination (e.g., *-das* ‘begin’). Chapter 7 presented an analysis of some of the lexical compounds, which have been argued to be syntactic previously.

The discussions in these chapters have revealed that the Japanese syntactic compound verbs enter into three types of structures: nuclear cosubordination, core

cosubordination, and core subordination. This trichotomy may seem to be simply an analogue to the three-way distinctions independently proposed in Kageyama (1993)(who works within the framework of P&P approach) and Matsumoto (1992, 1996)(who works within the framework of LFG). The crucial difference between an analysis presented in this dissertation and the analyses by these two scholars is that the three structural relations under current study do not show a subsumptive relation. In both Kageyama and Matsumoto, the syntactic compounds are first divided into the intransitive and transitive types, following Shitabani (1973a), and the latter is further divided into two subtypes. On the other hand, our findings show that though two of the three structures (nuclear cosubordination, core cosubordination, and core subordination) belong to the same level of juncture or enter into the same nexus relation, they are not in a subsumptive relation. Those structures are motivated on independent grounds and constitute three distinct structural types.

Matsumoto (1992, 1996) classifies compound verbs into subtypes on the basis of the differences of woodhood at the level of a(argument)-structure and f(unctional)-structure; namely, whether a compound is one word or two words at a-structure or at f-structure. Kageyama (1993) captures the differences by positing different X_-type configurations. An analysis presented here shows that the morphosyntactic structure of Japanese compound verbs can be described successfully by the notions of nexus and juncture, without positing the syntactic level of argument structure and of grammatical relations, or without associating grammatical relations or semantic roles with the positions in a configuration.

In Chapters 5 through 7, we also discussed whether the structural types of compound verbs should be characterized in terms of ‘raising’ vs. ‘control’ distinction. Raising can be understood as phenomena in which the semantic argument of the non-matrix predicate (actor) appears as the subject of the matrix predicate. Matsumoto (1992, 1996) characterizes his Type I verbs as ‘raising’ verbs (e.g., *-das* ‘let exit (begin)'). Raising involves argument-sharing in that the semantic argument of the non-matrix verb appears as the syntactic argument of the matrix verb. Matsumoto's Type I verbs correspond to compounds that enter into core subordination. In core subordination, the matrix core takes the linked core as its argument, and therefore, it involves no argument sharing. Hence, it seems inappropriate to characterize verb such as *-das* ‘let exit (begin)' as a raising verb. Similarly, control can be described as a phenomenon where the semantic argument of the non-matrix predicate must be interpreted to be the same as one of the arguments of the matrix predicate. Sells and Iida (1991) analyze *-owe* ‘*finish_{tran}*’ as a control predicate. Argument sharing is a property of a core juncture. We argued that *-owe* ‘*finish_{tran}*’ takes the juncture-nexus type of nuclear cosubordination. Nuclear level juncture does not involve argument sharing. Hence, it seems also inaccurate to characterize the structure for verbs such as *-owe* ‘*finish_{tran}*’ as a control predicate.

Examination of juncture-nexus types of compound verbs have also revealed that the morphosyntactic and the semantic relations expressed by the Japanese V-V construction are systematic, conforming to the principle of the Interclausal Relations Hierarchy proposed in Van Valin and LaPolla (1997), illustrated in Figure 8.1.²⁴

²⁴ The original work in Van Valin and LaPolla employ the term ‘aspectual’ rather than ‘phase’.

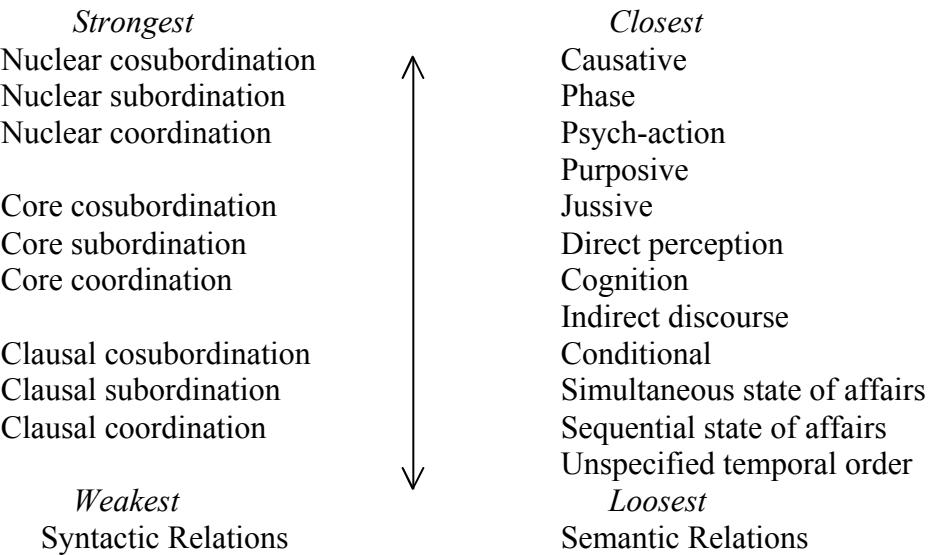


Figure 8.1. Interclausal Relations Hierarchy

Figure 8.1 shows that the syntactic relations of the nine juncture-nexus types can be arranged into a hierarchy on the basis of the tightness between the two units, and analogously, the semantic relations of two events can also be arranged into a hierarchy on the basis of the closeness of the two events. It is argued that the syntactic and the semantic relations enter into iconic relations such that it does not exhibit intersecting relations. For example, there should not be any language which expresses the closest semantic relation (i.e., causation) by the weakest syntactic linkage while expressing the looser semantic relation (e.g., unspecified temporal order) by a tighter juncture-nexus type.

Recall that we discussed in Chapter 4 that -(s)ase occurs in two types of junctures, nuclear coordination and core coordination. The semantics expressed by -(s)ase is causative in the former and jussive in the latter. Combining this observation with the other observations made in Chapters 5 through 7 reveals that Japanese V-Vs (including

verb-(*s*)ase) occur in five juncture-nexus types: nuclear cosubordination, nuclear coordination, core cosubordination, core subordination, and core coordination, expressing the concepts of: causative, phase, psych-action, and jussive. Recall also that lexical compounds can express the concept of cause as we saw with examples of means-result compounds (e.g., *osi-ake* push-open ‘open (it) by pushing (it)'). Then, the syntactic-semantic relation can be summarized as in Figure 8.2.

<u>Example</u>		<u>Syntactic Relations</u>	:	<u>Semantic Relation</u>
<i>osi-ake</i>	‘push-open’	(lexical compound)	:	Causative
<i>verb-owe</i>	‘-finish _{tran} ’	Nuclear cosubordination	:	Phase
<i>verb-(s)ase</i>	‘make’	Nuclear coordination	:	Causative
<i>verb-nare</i>	‘-get used to’	Core cosubordination	:	Psych-action
<i>verb-das</i>	‘-begin’	Core subordination	:	Phase
<i>verb-(s)ase</i>	‘-have’	Core coordination	:	Jussive

Figure 8.2. The syntactic and the semantic relations of the compounds

Figure 8.2 shows that the tightest semantic relation of *causation* is expressed by lexical compounding (e.g., *doa o osi-ake-ta* ‘I pushed open the door’). This point, however, does not undermine the basic claim of the Interclausal Relations Hierarchy. Van Valin and LaPolla (1997: 484) note that many languages express causation through derivational morphology, explaining that:

[T]he fact that it is the closest semantic relations that are grammaticalized into morphological constructions follows the basic claim of the Interclausal Relations Hierarchy; the stronger the semantic relation, the tighter the morphosyntactic bond between units, and the evolution from a tightly linked syntactic construction to an even more tightly linked morphological construction is a natural extension of the iconic relationship between form and meaning captured in the Interclausal Relations Hierarchy.

Figure 8.2 also shows that causation and phase are expressed by two distinct morphosyntactic forms. This does not violate the principle of the Interclausal Relations

Hierarchy, either, since many-to-one relation is merely a characteristic of this hierarchy. When we map this information onto the Interclausal Relations Hierarchy, only the tighter linkage becomes relevant, following the basic principle that “the tightest syntactic linkage realizing a particular semantic relation should be higher than or as high on the Interclausal Relations Hierarchy as the tightest syntactic linkage realizing semantic relations lower on the Interclausal Relations Hierarchy”(Van Valin and LaPolla 1997: 483). Then, Figure 8.2 can be simplified as in Figure 8.3.

<u>Example</u>		<u>Syntactic Relations</u>		<u>Semantic Relation</u>
<i>osi-aker</i>	‘push-open’	(lexical compound)	:	Causative
<i>verb-owe</i>	‘-finish _{tran} ’	Nuclear cosubordination	:	Phase
<i>verb-nare</i>	‘-get used to’	Core cosubordination	:	Psych-action
<i>verb-(s)ase</i>	‘-have’	Core coordination	:	Jussive

Figure 8.3. The Interclausal Relations Hierarchy of Japanese V-V

Figure 8.3. shows that the tightest morphosyntactic relations that express the concepts of causative, phase, psych-action and jussive are arranged in the order of lexical compounding (causative), nuclear cosubordination (phase), core cosubordination (psych-action), and core coordination (jussive). The ordering of the syntactic relations that express the semantic relations arranged from the tightest to the loosest exhibits the ordering predicted from the principle, showing that the morphosyntactic relations and the semantic relations exhibited by Japanese compound verbs conform to the principle of the Interclausal Relations Hierarchy.

This dissertation also demonstrated that Japanese compound verbs exhibit a mismatch between morphology and syntax in their form (cf. Sadock 1991). On one hand, compound verbs constitute morphologically a unitary class of V-V. On the other hand,

they enter into different syntactic structures, as summarized in Figure 8.2. This indicates that Japanese compound verbs are constrained by morphological principles distinct from syntactic principles, suggesting the need to recognize a separate component of grammar for morphology and for syntax, as argued in Shibatani and Kageyama (1988) among others.

The architecture of RRG (Van Valin and LaPolla 1997) made it possible for us to pursue the examination of the semantic and syntactic nature of Japanese compound verbs. The theory of nexus and juncture allowed us to elucidate the syntactic relations between two component verbs. The lexical decompositional approach permitted us to better understand what semantic constraints V2 imposes on V1. This dissertation dealt with only a small number of V2s. An examination of V2s on a larger scale would provide us with more insights to fully understand the syntactic and semantic nature of Japanese compound verbs.

Appendix A

Table A1: The intransitive-transitive pairs found in V1 and V2 positions

Contrast intran/tran		V1	V2	
e/Ø	1	*kire/kir ‘cut’	1	*kire/kir ‘cut’
	2	*nuke/nuk ‘pull out’	2	*nuke/nuk ‘pull out’
	3	hazike/hazik ‘snap’	3	sake/sak ‘tear’
	4	sire/sir ‘know’		
	5	ure/ur ‘sell’		
	6	hage/hag ‘remove’		
	7	nie/ni ‘cook’		
	8	ore/or ‘brake’		
	9	sure/sur ‘rub’		
	10	toke/tok ‘untie’		
	11	yake/yak ‘grill’		
Ø/e	12	*ir/ire ‘let enter’	4	*ir/ire ‘let enter’
	13	*muk/muke ‘let face’	5	*muk/muke ‘let face’
	14	*tuk/tuke ‘attach’	6	*tat/tate ‘stand’
	15	*tat/tate ‘sand’	7	*tuk/tuke ‘attach’
	16	itam/itame ‘make hurt’	8	hus/huse ‘lay down’
			9	kom/kome ‘fill with’
			10	sorow/soroe ‘make complete’
			11	sow/soe ‘add’
			12	susum/susume ‘advance’
			13	tigaw/tigae ‘change’
			14	todok/todoke ‘deliver’
			15	tuzuk/tuzuke ‘continue’
			16	yam/yame ‘stop’
ar/e	17	*agar/age ‘raise’	17	*agar/age ‘raise’
	18	*atar/ate ‘hit’	18	*atar/ate ‘hit’
	19	*hirogar/hiroge ‘widen’	19	*hirogar/hiroge ‘widen’
	20	*kawar/kae ‘change’	20	*kawar/kae ‘change’
	21	hazimar/hazime ‘begin’	21	atumar/atume ‘gather’
	22	mazar/maze ‘mix’	22	hamar/hame ‘fit’
			23	kakar/kake ‘hook’
			24	kasnar/kasane ‘pile up’
			25	katamar/katame ‘harden’
			26	magar/mage ‘bend’
			27	owar/owe ‘finish’
			28	sagar/sage ‘lower’
			29	simar/sime ‘tighten’
			30	sukumar/sukume ‘duck’
			31	todomar/todome ‘let remain’
			32	tomar/tome ‘stop’
			33	tumar/tume ‘pack’

r/s	23 24 25 26 27 28	*mawar/mawas ‘turn’ *nar/nas ‘perform’ *okor/okos ‘let happen’ *toor/toos ‘let pass’ korogar/korogas ‘roll’ utur/utus ‘move’	34 35 36 37 38 39 40 41 42 43	*mawar/mawas ‘turn’ *nar/nas ‘make’ *okor/okos ‘let happen’ *toor/toos ‘let pass’ kaer/kaes ‘return’ kudar/kudas ‘lower’ modor/modos ‘return’ naor/naos ‘fix’ nokor/nokos ‘leave’ watar/watas ‘let cross’
re/s	29 30	araware/arawas ‘make appear’ nagare/nagas ‘let flow’	44 45 46 47 48 49	hanare/hanas ‘separate’ kuzure/kuzus ‘destroy’ kobore/kobos ‘spill’ midare/midas ‘disturb’ nogare/nogas ‘let escape’ tubure/tubus ‘crush’
Ø /as	31 32 33 34 35	*tob/tobas ‘let fly’ *ugok/ugokas ‘move’ ter/teras ‘let shine’ nar/naras ‘ring’ tir/tiras ‘scatter’	50 51 52 53 54 55 56 57	*tob/tobas ‘let fly’ *ugok/ugokas ‘move’ aw/awas ‘bring together’ her/heras ‘reduce’ kaw/kawas ‘exchange’ megur/meguras ‘surround’ nobor/noboras ‘let go up’ tir/tiras ‘scatter’
e/as	36 37	*de/das ‘let exit’ tare/taras ‘let hang’	58 59 60 61 62 63	*de/das ‘let out’ are/aras ‘ravage’ hate/hatas ‘carry out’ magire/magiras ‘distract’ make/makas ‘beat’ nare/naras ‘tame’
i/os	38	*oti/otos ‘drop’,	64 65 66	*oti/otos ‘drop’ sugi/sugos ‘pass’ ori/oros ‘put down’
other	39 40 41 42 43 44 45	*kie/kes ‘extinguish’ *yor/yose ‘let approach’ mie/mise ‘show’ nor/nose ‘let ride’ tumor/tum ‘pile up’ yure:yurag/yusur:yusabur ‘shake’ umare/um ‘give birth’	67 68 69 70 71 72	*kier/kes ‘extinguish’ *yor/yose ‘bring near’ kabusar/kabur ‘cover’ mazir/maze ‘mix’ nobi/nobas ‘extend’ tari/tas ‘add’

Note: 1. '*' indicates that the intransitive-transitive pair appeared at both V1 and V2 positions.

2. Gloss shows the literal meaning of only the transitive verb.

References

- Anderson, Stephen R. 1985. Typological distinctions in word formation. In Timothy Shopen, ed., *Grammatical categories and the lexicon*, vol. 3, 3-56. MA: Cambridge University Press.
- Binnick, Robert. 1991. *Time and the verb: a guide to tense and aspect*. New York: Oxford University.
- Chafe, Wallace L. 1970. *Meaning and the structure of language*. Chicago/London: The University of Chicago Press.
- Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Chomsky, Noam. 1986. *Barriers*. Cambridge, MA: MIT Press.
- Chung, Sandra and Alan Timberlake. 1985. Tense, aspect and mood. In Timothy Shopen, ed., *Language typology and syntactic description*, 202-258. Cambridge: Cambridge University Press.
- Comrie, Bernard. 1976. *Aspect: an introduction to the study of verbal aspect and related problems*. Cambridge: Cambridge University Press.
- Coseriu, Eugenio. 1976. *Das romanische verbsystem*. Tübingen: TBL Verlag Gunter Narr.
- Cseresnyési, László. 1996. Perfectivity in Japanese. *Folia Linguistica* 30.1-2: 47-58.
- Dowty, R. David. 1979. *Word meaning and Montague grammar*. Dordrecht: D. Reidel Publishing Company.
- Dowty, R. David. 1991. Thematic proto-roles and argument selection. *Language* 67: 547-619.
- Foley, William A. and Robert D. Van Valin, Jr. 1984. *Functional syntax and universal*

- grammar*. Cambridge: Cambridge University Press.
- Freed, F. Alice. 1979. *The semantics of English aspectual complementation*. Dordrecht: D. Reidel Publishing Company.
- Givón, Talmy. 1979. *On understanding grammar*. New York: Academic Press.
- Grimshaw, Jane. 1990. *Argument structure*. Cambridge, MA: MIT Press.
- Grimshaw, Jane, and Armin Mester. 1988. Light verbs and theta-marking. *Linguistic Inquiry* 19: 205-32.
- Hansell, Mark. 1993. Serial verbs and complement constructions in Mandarin: a clause linkage analysis. In Robert D. Van Valin, Jr., ed., *Advances in Role and Reference Grammar*, 197-233. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Harada, Sinichi. 1976. Honorifics. In Masayoshi Shibatani, ed., *Syntax and semantics*, vol. 5: *Japanese generative grammar*, 499-561. New York: Academic Press.
- Harada, Sinichi. 1973. Counter equi-NP deletion. *Annual Bulletin Research Institute of Logopedics and Phoniatrics* 7, 113-148. Tokyo: University of Tokyo.
- Hasegawa, Yoko. 1996. *A study of Japanese clause linkage: the connective TE in Japanese*. Stanford: Center for the Study of Language and information.
- Himeno, Masako. 1976. Hukugoo-doosi ‘~agaru,’ ‘~ageru’ oyobi kakoo o arawasu hukugoo-doosi-rui [The compound verbs ‘-agaru’ and ‘-ageru’ and those meaning descending]. *Nihongo-gakkoo-ronsyuu* 3: 91-122.
- Himeno, Masako. 1977. Hukugoo-doosi ‘~deru’ to ‘~dasu’ [The compound verbs ‘-deru’ and ‘-dasu’]. *Nihongo-gakkoo-ronsyuu* 4: 71-95.
- Himeno, Masako. 1978. Hukugoo-doosi ‘~komu’ oyobi naibu-idoo o arawasu hukugoo-

- doosi [The compound verbs ‘-komu’ and other verbs indicating movement inward]. *Nihongo-gakkoo-ronsyuu* 5: 47-70.
- Himeno, Masako. 1979. Hukugoo-doosi ‘~kakaru’ to ‘~kakeru’ [The compound verbs ‘-kakaru’ and ‘-kakeru’]. *Nihongo-gakkoo-ronsyuu* 6: 37-61.
- Himeno, Masako. 1980. Hukugoo-doosi ‘~kiru’ to ‘~nuku’ ‘~dasu’ [The compound verbs ‘-kiru’ ‘-nuku,’ and ‘-toosu’]. *Nihongo-gakkoo-ronsyuu* 7: 23-46.
- Himeno, Masako. 1985. Hukugoo-doosi ‘~tuku’ to ‘~tukeru’ [The compound verbs ‘-tuku’ and ‘-tukeru’]. *Nihongo-gakkoo-ronsyuu* 12: 52-71.
- Himeno, Masako. 1999. *Hukugoo-doosi no koozoo to imi yoohoo* [The structure, meaning and usage of compound verbs]. Tokyo: Hituzisyoboo.
- Hoad, T. F. (ed.). 1986. *The concise Oxford dictionary of English etymology*. Oxford: Oxford University Press.
- Hopper, Paul J. and Sandra A. Thompson. 1980. Transitivity in grammar and discourse. *Language* 56: 251-299.
- Imai, Shingo. 1998. *Logical structures and case marking in Japanese*. Unpublished master’s thesis, University at Buffalo, the State University of New York, New York.
- Ishii, Yasuo. 1989. Reciprocal predicates in Japanese. *Eastern States Conference on Linguistics* 6: 150-161.
- Jackendoff, Ray. 1990. *Semantic Structures*. Cambridge, MA: The MIT Press.
- Jacobsen, Wesley M. 1982. Vendler’s verb classes and the aspectual character of Japanese *te-iru*. *Berkeley Linguistics Society* 8: 373-83.
- Jacobsen, Wesley M. 1992. *The transitive structure of events in Japanese*. Tokyo:

Kurosio Publishers.

Jensen, John T. 1990. *Morphology: word structures in generative grammar*.

Amsterdam/Philadelphia: John Benjamins Publishing Company.

Kageyama, Taro. 1989. The place of morphology in the grammar: Verb-Verb compounds in Japanese. In Geert Booij and Jaap van Marle, eds., *Yearbook of morphology*, vol. 2, 73-94. Dordrecht: Foris publications.

Kageyama, Taro. 1993. *Bunpoo to gokeesee* [Grammar and word formation]. Tokyo: Hituzisyoboo.

Kageyama, Taro. 1996. *Doosi-imি-ron* [A theory of verb semantics]. Tokyo: Kurosio Syuppan.

Kageyama, Taro. 1999. *Keetairon to imি* [Morphology and semantics]. Tokyo: Kurosio Syuppan.

Kageyama, Taro. 2001. Word formation. In Mark Arnoff and Janie Rees-Miller, eds., *The handbook of linguistics*, 297-325. MA: Blackwell Publishers Inc.

Kageyama, Taro and Yoko Yumoto. 1997. *Gokeesee to gainen koozoo* [Word formation and conceptual structures]. In Minoru Nakau, series ed., *Nitieego hikaku sensyo* [Japanese-English comparative series], vol. 8. Tokyo: Kenkyuusya Syuppan.

Kikuti, Yasuto. 1994. *Keego* [Honorifics]. Tokyo: Kadokawasyoten.

Kim, Alan Hyun-Oak. 1988. Preverbal focusing and type XXIII languages. In Michael. Hammond, Edith Moravcsik and Jessica Wirth, eds., *Studies in syntactic typology*, 147-169. Amsterdam and Philadelphia: John Benjamins.

Kindaichi, Haruhiko. 1976[1950]. *Nihongo doosi no iti bunrui* [A classification of Japanese verbs]. *Gengo kenkyuu* 15.48-63. Reprinted in Haruhiko Kindaichi,

- ed., *Nihongo doosi no asupekuto* [Aspect of Japanese verbs], 5-26. Tokyo: Mugisyoboo.
- Kindaichi, Haruhiko. 1976[1955]. *Nihongo doosi no tensu to asupekuto* [Tense and aspect of Japanese verbs]. Nagoya daigaku bungakubu kenkyuu ronshuu X, bungaku 4. Reprinted in Haruhiko Kindaichi. ed., *Nihongo doosi no asupekuto* [Aspect of Japanese verbs], 27-61. Tokyo: Mugi Syoboo.
- Kiryu, Kazuhiko. 1999. Conceptualization and aspect in some Asian languages. In Werner Abraham and Leonid Kulikov, eds., *Tense-aspect, transitivity and causativity: Essays in honor of Vladimir Nedjalkov*, 43-62. Amsterdam: John Benjamins Publishing Company.
- Kishimoto, Hideki. 1996. Split intransitivity in Japanese and the unaccusative hypothesis. *Language* 72: 248-86.
- Kitagawa, Yoshihisa. 1986. Subject in Japanese and English. Unpublished doctoral dissertation, University of Massachusetts at Amherst, Massachusetts.
- Kitagawa, Chisato and Hideo Fujii. 1999. Transitivity alternations in Japanese. *MIT Working Papers in Linguistics* 35: 87-115.
- Kitahara, Yasuo. 1987. *Zenyaku-kogo-reekai-ziten* [dictionary for old Japanese] (3rd ed.). Tokyo: Syoogakkan.
- Klaiman, M. H. 1987. Aktionsart, semantics, and function in the Japanese “passive”. *Studies in Language* 11.2: 401-434.
- Kodama, Tomiko. 1998a. Grammaticalization: The ambiguity of Japanese morpheme -e-. *Japanese/Korean Linguistics* 8: 161-174.
- Kodama, Tomiko. 1998b. Japanese aspectual compound verbs and transitivity. *LACUS*

Forum 24: 171-187.

- Kudoo, Mayumi. 1995. *Asupekuto, tensu taikeeto tekusuto: gendai nihongo no zikan no hyoogen* [Aspect, tense and text: temporal expressions in modern Japanese]. Tokyo: Hituzisyoboo.
- Kuno, Susumu. 1973. *The structure of the Japanese language*. Cambridge, MA: The MIT Press.
- Kuno, Susumu. 1978. *Danwa no bunpoo* [Grammar of discourse]. Tokyo: Taisyuukan.
- Kuno, Susumu. 1987. Honorific marking in Japanese and the word formation hypothesis of causatives and passives. *Studies in Language* 11.1: 99-128.
- Kuroda, S. Y. 1965. Causative forms in Japanese. *Foundations of Language* 1: 30-50.
- Kuwahara, Humiyo. 1999. Henka no kaisi o arawasu ‘~hazimeru’ [‘~hazimeru’ expressing the inception of a change]. *Nihongo-kyooiku* 99: 1-11.
- Langacker, Ronald. 1987. *Foundations of cognitive grammar vol. 1 Theoretical prerequisites*. Stanford: Stanford University.
- Makino, Seiiti and Mitio Tutui. 1986. *A dictionary of basic Japanese grammar*. Tokyo: The Japan Times. Ltd.
- Martin, Samuel. 1975. *A reference grammar of Japanese*. New Haven, CT: Yale University Press.
- Matsumoto, Yo. 1992. *On the wordhood of complex predicates in Japanese*. Unpublished doctoral dissertation, Stanford University, California.
- Matsumoto, Yo. 1996. *Complex predicates in Japanese: a syntactic and semantic study of the notion ‘word’*. Stanford: CSLI Publications, Tokyo: Kurosio Publishers.

- Matsumoto, Yo. 1998. Nihongo no goi-teki hukugoo-doosi ni okeru doosi no kumiawase [The combinatory possibilities in Japanese V-V lexical compounds]. *Gengo Kenkyuu* 114: 37-83.
- McCawley, James D. 1968. *The phonological component of a grammar of Japanese*. The Hague: Mouton & Co. N.V., Publishers.
- McClure, William. 1994. The progressive: Japanese vs. English. *Acta Linguistica Hungarica* 42.3-4: 149-170.
- Miyagawa, Shigeru. 1987. Lexical categories in Japanese. *Lingua* 73: 29-51.
- Miyagawa, Shigeru. 1989. Light verbs and the ergative hypothesis. *Linguistic Inquiry* 20.4: 659-668.
- Morita, Yoshiyuki. 1990. *Nihongogaku to nihongokyooiku* [Study of the Japanese language and the Japanese pedagogy]. Tokyo: Bonzinsha.
- Murray, James A. H, Henry Bradley, W. A. Craigie and C. T. Onions (Eds). 1989. *The Oxford English Dictionary* (2nd ed., vol. 16). Oxford: Oxford University Press.
- Nagasima, Yosiroo. 1976. Hukugoo-doosi no koozoo [The structure of compound verbs]. In Takao Suzuki, ed., *Nihongo-kooza dai-yon-kan, Nihongo no goi to hyoogen*, 64-104. Tokyo: Taisyuukan.
- Newmeyer, J. Frederick. 1975. *English aspectual verbs*. The Hague: Mouton & Co. N. V., Publishers.
- Nishigauchi, Taisuke. 1992. Syntax of reciprocals in Japanese. *Journal of East Asian Linguistics* 1: 157-196.
- Nishigauchi, Taisuke. 1993. Long distance passive. In Nobuko Hasegawa, ed., *Japanese syntax in comparative grammar*, 79-114. Tokyo: Kurosoio Syuppan.

- Nishiyama, Kunio. 1998. V-V compounds as serialization. *Journal of East Asian Linguistics* 7, 175-217.
- Nomura, Masaaki and Masahiko Ishii. 1987. *Hukugoodoosi-siryoosyuu* [data of compound verbs] Kokuritu-kokugo-kenkyuuzyo-hookoku.
- Ohori, Toshio. 1992. *Diachrony in clause linkage and related issues*. Unpublished doctoral dissertation, University of California, Berkeley, California.
- Olson, Michael L. 1981. *Barai clause junctures: toward a functional theory of inter-clausal relations*. Unpublished doctoral dissertation, Australian National University.
- Perlmutter, David M. 1970. The two verbs begin. In Roderick A. Jacobs and Peter S. Rosenbaum, eds., *Readings in English transformational grammar*, 107-119. Waltham, MA: Ginn and Company.
- Pustejovsky, James J. 1991. The generative lexicon. *Computational Linguistics* 17.4: 409-441.
- Pustejovsky, James J. 1995. *The generative lexicon*. Cambridge, MA: MIT Press.
- Roberts, John. 1988. Amele switch-reference and the theory of grammar. *Linguistic Inquiry* 19.1: 45-64.
- Ross, John Robert. 1972. More on *begin*. *Foundations of Language* 8.4: 574-577.
- Sadock, Jerrold. 1991. *Autolexical syntax*. Chicago: University of Chicago Press.
- Sells, Peter, and Masayo Iida. 1991. Subject and object honorification in Japanese. *Berkeley Linguistics Society* 17: 312-323.
- Shibatani, Masayoshi. 1973a. Where morphology and syntax clash: a case in Japanese aspectual verbs. *Gengo kenkyuu* 64: 65-96.

Shibatani, Masayoshi. 1973b. Semantics of Japanese causativization. *Foundations of Language* 9: 327-373.

Shibatani, Masayoshi. 1976. The grammar of causative constructions: a conspectus. In Masayoshi Shibatani, ed., *Syntax and semantics*, vol. 6: *The grammar of causative constructions*, 1-40. New York: Academic Press.

Shibatani, Masayoshi. 1990. *The languages of Japan*. Cambridge: Cambridge University Press.

Shibatani, Masayoshi. 1994. An integrational approach to possessor raising, ethical datives, and adversative passives. *Berkeley Linguistics Society* 20: 461-486.

Shibatani, Masayoshi and Taro Kageyama. 1988. Word formation in a modular theory of grammar: a case of post-syntactic compounds in Japanese. *Language* 64: 461-84.

Shirai, Yasuhiro. 1998. Where the progressive and the resultative meet: imperfective aspect in Japanese, Chinese, Korean and English. *Studies in Language* 22.3: 661-692.

Shirai, Yasuhiro. 2000. The semantics of the Japanese imperfective *-teiru*: an integrative approach. *Journal of pragmatics* 32.3: 327-361.

Smith, Carlota, 1997. *The parameter of aspect* (2nd ed.). Dordrecht: Kluwer Academic Publishers.

Soga, Matsuo. 1983. *Tense and aspect in modern colloquial Japanese*. Vancouver: University of British Columbia Press.

Spencer, Andrew. 1991. *Morphological theory: An introduction to word structure in generative grammar*. Oxford: Blackwell Publishers Ltd.

- Sugioka, Yoko. 1985. *Interaction of derivational morphology and syntax in Japanese and English*. New York: Garland.
- Tagashira, Yoshiko. 1978. *Characterization of Japanese compound verbs*. Unpublished doctoral dissertation, University of Chicago, Illinois.
- Talmy, Leonard. 1981, May. *Force dynamics*. Paper presented at conference on Language and Mental Imagery, University of California, Berkeley.
- Talmy, Leonard. 1988. Force dynamics in language and cognition. *Cognitive Science* 12: 49-100.
- Talmy, Leonard. 1996. The windowing of attention in language. In Masayoshi Shibatani and Sandra Thompson, eds., *Grammatical constructions: Their form and meaning*, 236-287. Oxford, England: Oxford University Press
- Talmy, Leonard. 2000. *Toward a cognitive semantics*, vol. 1, *Concept structuring systems*. Cambridge, MA: The MIT Press.
- Teramura 1984. *Nihongo no sintakusu to imi* [Syntax and semantics of Japanese], vol. 2. Tokyo: Kurosio syuppan.
- Tesnière, Lucien. 1953. *Equisse d'une syntaxe structurale*. Paris: Klinksieck.
- Tesnière, Lucien. 1959. *Eléments de syntaxe structurale*. Paris: Klinksieck.
- Toratani, Kiyoko. 1997. Typology of split intransitivity: lexical aspect and the unaccusative hypothesis in Japanese. Unpublished manuscript, University at Buffalo, the State University of New York.
- Toratani, Kiyoko. 1998. Lexical aspect and split intransitivity in Japanese. *Chicago Linguistic Society* 34: 377-391.
- Toratani, Kiyoko. 1999, July. *Honorific and compound verbs in Japanese*. Paper

presented at the International Workshop and Conference on Role and Reference Grammar, University of Illinois.

Toratani, Kiyoko. 2001, July. *On the meaning of -kake ‘almost/be about to/do halfway’ in Japanese*. Paper presented at the International Workshop and Conference on Role and Reference Grammar, University of California at Santa Barbara.

Tsujimura, Natsuko and Masayo Iida. 1999. Deverbal nominals and telicity in Japanese. *Journal of East Asian Linguistics* 8: 107-130.

Van Valin, Robert D., Jr. 2001. *An introduction to syntax*. Cambridge: Cambridge University Press.

Van Valin, Robert D., Jr. and William A. Foley. 1980. Role and reference grammar. In Edith A. Moravcsik and Jessica R. Wirth eds., *Syntax and semantics*, vol. 13: *Current approaches to syntax*, 329-352. New York: Academic Press.

Van Valin, Robert D., Jr. and Randy LaPolla. 1997. *Syntax: structure, meaning and function*. Cambridge: Cambridge University Press.

Van Valin, Robert D., Jr. and David P. Wilkins. 1996. The case for ‘effector’: case roles, agents, and agency revisited. In Masayoshi Shibatani and Sandra A. Thompson, eds., *Grammatical constructions: their form and meaning*, 289-322. Oxford: Clarendon Press.

Vendler, Zeno. 1957[1967]. *Linguistics in philosophy*. Ithaca; Cornell University Press.

Wasow, Thomas. 1977. Transformations and the lexicon. In Culicover, P., Wasow, T. and Akmajian, A, eds., *Formal syntax*, 327-360. New York: Academic Press.

Yanagida, Yuko. 1985. Informational predictability and case-marking variation in Japanese. *Text* 5: 123-145.

- Yamamoto, Kiyotaka. 1983. Hukugoogo no koozoo to sintakusu [Structure and syntax of compounds]. Sohutowea bunsyo no tameno nihongo syori no kenkyuu - 5 - keisankikiyoo rekisikon no tameni [Studies of treatment of Japanese for software documents—for the lexicon for the computers], 315-380. Tokyo: Zyoohoo-syori-sinkoo-zigyoo-kyookai.
- Yumoto, Yoko. 1996. Gokeesee to goi-gainen-koozoo: Nihongo no ‘doosi+doosi’ no hukugoogo-keesee ni tuite [Word formation and lexical conceptual structure: on compound formation of verb+verb in Japanese], *Aspects of language and culture; festschrift in honor of Professor Hiroyuki Okuda on the occasion of his retirement*, 105-118. Tokyo: Eihosya.
- Zubin, David. 1979. Discourse function of morphology: the focus system in German. In Talmy Givón, ed., *Syntax and semantics*, vol. 12: *Discourse and syntax*, 469-504. New York: Academic Press.

Text references

- Hosi, Sin'iti. 1985. *Nokku no oto ga* [There was a knock]. Tokyo: Sintyoosya.
- Harada Munenori. 1994. *Mumumu no hibi* [Days of mumumu]. Tokyo: Syuueisya.
- Ikezawa, Natuki. 1988. *Sutiru raihu* [Still Life]. Tokyo: Tyuuookooronsya-bunko.
- Kimura Harumi. 1976. *Tasogare no rondan kara* [From London at twilight]. Tokyo: Bungeesyunzyuu.
- Kita, Morio. 1981. *Tottyan wa daihenzin* [My father is very different]. Tokyo: Sintyoosya.
- Murakami, Haruki. 1983. *Tyuugoku yuki no suroo booto* [A slow boat bound for China]. Tokyo: Tyuuookooronsya.
- Mure, Yooko. 1997. *Atasi ga kaeru ie* [The home I return to]. Tokyo: Bungeesyunzyuu.
- Matumoto, Seityoo. 1984. *Zyuumanbun no iti no guuzen* [A one-to-one-hundred-thousand chance]. Tokyo: Bunsyuubunko
- Natuki, Sizuko. 1983. *Kaze no tobira* [A door of the wind]. Tokyo: Kadokawa Syoten.
- Natume, Sooseki. 1906. *Bottyan* [Master]. Tokyo. Syuueesha.
- Siina Makoto. 1984. *Zyon Mansaku no tooboo* [An escape of John Mansaku]. Tokyo: Kadokawa Syoten.
- Simoda, Harumi. 1998. *Bikkuri-suru-zya-nai-no* [I am startled]. Tokyo: Bungeesyunzyuu.
- Yosimoto Banana. 1991. *Kittin* [Kitchen]. Tokyo: Hukutakebunko.