

## A Study of Aspectual Affixes in Japanese

by  
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### Abstract

The primary objective of this paper is to demonstrate that for the proper analysis of the combination of two Japanese verbs, (1) V + V combination such as *hasiri-dasu* (run-begin) “to begin to run,” and (2) V1 + *te* + V2 combination such as *hasiri-te (>hasit-te) -iru* (run-be ing/run-have en) “to be running/to have run,” it is essential to regard the first verb in the conjunctive form as a Base Verb or BV and then classify the second verb of this combination as an Aspectual Affix, or AA which behaves as a verbal element that adds an aspectual meaning to the preceding BV (= V1) which expresses the “core lexical meaning” of the V1 - *te* - V2 verbal construction. The construction I am going to deal with is V1 + *te* + V2 combination, where such V2 functions as an aspectual affix and can therefore be labeled as AA namely an aspectual affix. This construction behaves like a single unit and is distinguished from V1 + *te* + V2 combination where V2 is regarded as a full verb. There is good evidence to support my claim.

Key Words: Aspectual Affixes, Base Verbs, Grimshaw's and Mester's Argument Transfer, Grimshaw's Theory of Argument-Structure and Agent Suppressing Rule

### 1. Introduction

The primary objective of this paper is to demonstrate that for the proper analysis of the combination of two Japanese verbs, such as *hasiri-dasu* (run-begin) “to begin to run,” and *hasiri-te (> hasit-te) -iru* (run-be ing/run-have en) “to be running/to have run,” it is essential to regard the first verb in the conjunctive form as a Base Verb or BV and then classify the second verb of this combination as an Aspectual Affix, or AA which behaves as a verbal element that adds an aspectual meaning to the preceding BV (= V1) which expresses the “core lexical meaning” of the V1 - *te* - V2 verbal construction. Thus the appellation “Base Verb” (hereafter BV) reflects the fact that BV

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expresses such a core meaning which is further modified by an Aspectual Affix (hereafter AA) or V2. I have introduced these two terms BV and AA, because it is vitally important to make a functional distinction between these two verbs in the combination V1 - (*te*) - V2. For BV or V1 expresses a wide variety of verbal meanings, while AA or V2 (with or without *te* between V1 and V2) expresses a very limited range of aspectual meanings such as inchoative, perfective, progressive, iterative, etc. Up to now, Japanese linguists have usually classified such verbal combinations as compound verbs when V1 is directly followed by V2 as in *hasiri-dasu* and V1 - *te* - V2 as a combination of a *te*-form (i.e. V1 + V2) and a *hojodoosi* or auxiliary verb as in *hasiri-te* (> *hasit-te*) -*iru* “is/are running , has/have run” or *ake-te-oku* “ to open [a window, etc.] in advance” where many Japanese linguists speak of *te-iru*, *te-oku* auxiliaries, though the conjunctive particle *te* is conjoined with immediately preceding V1 in a *renyookei* or conjunctive form like *hasit-te* or *ake-te*. To avoid such inconsistency, I propose that the second V both in V1 + V2 and V1 + *te* + V2 should be regarded as an “auxiliary form,” especially when the meaning of V2 departs from the usual lexical meaning of such a verb used as a full verb. Further, in romanized text, a hyphen should be placed not only immediately before but also right after *te*, to indicate that AA is a bound morpheme, closely knit into the V1 + *te* + V2 structure. Notice the difference between *dasu* as a full verb meaning “to put out, to produce” and *dasu* with an inchoative meaning as in *hasiri-dasu* “to begin to run” and the difference between *oku* used as a full verb meaning “to place, put” and (*te*-) *oku* used as AA with the meaning “to do (something) in advance.”

I am not going to deal with V1 + V2, which Japanese linguists call “compound verbs.” V2 of such “*te*-less compound verbs” may or may not express aspects. When V2s in such compound verbs express grammatical aspects, they can be labeled as AAs just as V2s in V1 + *te* + V2 combinations. Thus I argue that whenever such an auxiliary verbal element appears as V2 in V1+ (*te*) +V2 combination and expresses an aspectual meaning, such V2 should be named as AA.

In the paper, I deal with only AAs with *te* preceding (in the combination V1 + *te* + V2). The presence of a hyphen before and after *te* is necessary, since this “verbal phrase” is a close-knit unit so that each of the three morphemes should be regarded as a bound morpheme. To confirm how close-knit a structure this V1 + *te* + V2 or more exactly BV + AA (where the particle *te* is not overtly expressed) really is, I should first examine the linguistic function of the conjunctive particle *te*.

This particle *te*, which otherwise carries a conjunctive meaning “and” together with the conjunctive form of the V1 or BV, is semantically an empty morpheme, its main grammatical function being a kind of connector to bring together the two verbal elements, namely, V1 or BV that precedes it and V2 or AA that follows. If we compare an example of BV + AA *hasit-te-iru* with a compound verb phrase V1-*te* V2 like *hasit-te yasumu* “to run and then rest,” where we have actually two full verbs combined by *te* which preserves the conjunctive meaning “and” here, we have the sequence of mor-

phemes V1 *-te* V2, where V1 and V2 are coordinated by the conjunctive particle *te* with its lexical meaning “and.” Further, V2 is not an AA in the latter case, but an ordinary verb *yasumu* “to rest.” Here then, no hyphen is necessary between *te* and V2, since the conjunctive particle *te* is simply agglutinated to the first V1, but not to V2. Thus the structure of such a verb phrase should be V1-*te* V2 with no hyphen between *te* and V2. This structure is quite different from the aforementioned BV + AA (or V1 - *te* - V2) where the sole grammatical function of *te* is to simply “bound together” BV and AA, and AA is an auxiliary verb expressing grammatical aspect of the preceding BV. Thus, this *te* is not indicated in the formula BV + AA.

Now that the BV + AA can thus be regarded as a close-knit single unit, Grimshaw’s theory of Argument Structure (1990) and Grimshaw’s and Mester’s theory of Argument Transfer (1989) can be applied to the analysis of the BV + AA structure with a certain degree of modification to make these theories fit for the analysis of this specific structure BV + AA. Though Grimshaw’s Argument Structure (hereafter a-structure) was primarily intended for the syntactic analysis of the English verbs, there is every indication that her theory has a great potential of its “universal” application in general, and has actually been proven to be most useful for the analysis and correct understanding of Japanese BV as well as that of AA in this structure has been also made possible.

It is true that this structure consisting of BV + AA with *te* appearing in the middle occasionally allows a couple of adverbs such as *sae* “even”, *mo* “too” and *saemo* “even ...too” to be inserted right after the particle *te*. This insertion, however, does not nullify the fact that the BV + AA structure functions as a unit, because in the Modern Japanese BV + AA structure, AA never functions as a full verb but only as an auxiliary aspectual affix. This AA can, therefore, take no argument like BV which always takes at least one argument. In the example (1) given below, the BV *ake-ru* “to open” takes two arguments, namely agent *John-ga* and theme *mado-o*, but in this whole sentence the number of arguments remain unchanged (i.e. two), simply because AA (*te*) *ok-u* does not take any argument. If this AA were a full verb like *ok-u* “to place, put,” It would take at least three arguments including agent *John-ga*. But since the AA (*te*) *-oku* does not take any argument because it is not a full verb, the number of arguments in (1) below remains unchanged.

- (1) John-ga      mado-o      ake-te-ok-u  
       John-Nom    window-Acc    open-AA-Pres  
       “John opens the window in advance.”

Accordingly, this particular structure, BV + AA, whose example has been shown in (1) above, should be regarded as unitary.

There exists in German a somewhat analogous example of linguistic unit, which

behaves as a single unit when it is “Nennform”(= infinitive). Otherwise, it gets separated into two parts. Compare, for example, *das Fenster aufmachen* (the-window-open) “to open the window” with *um das Fenster aufzumachen* (in order to-the-window-open) “in order to open the window” and *Er hat das Fenster aufgemacht* (he-has-the-window-opened) “He has opened the window.” In these two examples above, the insertion of *zu* and *ge* has been made right after *auf*.

In Modern Japanese, the structure BV + AA seldom allows a morpheme insertion within itself, and even when such an insertion takes place, the morphemes that can be inserted between BV and AA are extremely limited in number and kind: *sae*, *mo* and *saemo* “even,” “too” and “even ...too” respectively. In the case of separable verbs in German, separable verbs appear separated not only in such cases as *aufzumachen* (i.e. to infinitive form meaning “to open”) and *aufgemacht* (i.e. past participle form meaning “opened”) but in all finite forms without auxiliary verbs.

This means that the unitary nature of the BV + AA structure in Japanese is far stronger than that of German separable verbs.

I have started my discussion of BV + AA with the initial description of its structure as V1 + *te* + V2, and have shown that the conjunctive particle *te*, whose function is almost identical as the *renyookei* or conjunctive form of V1, and as a result I now argue that the *te* portion functioning like a mere reinforcing element (or an empty morpheme) of the immediately preceding V1 in *renyookei* and thus with the complete loss of its meaning of coordination “and” should be included in BV of my BV + AA formula.

Now, as I have already indicated, there exists a structure V1 + *te* + V2, where the second V is not an affix or an auxiliary element but a full verb. This is the case where both V1 and V2 are coordinated as in *hasi-te*, (*hasiri-te*) *yasumu* (run-and rest) “to run and take a rest,” which is quite different from BV + AA *hasit-te-oku* (run-do in advance) “to run in advance,” because we can insert a variety of morphemes after *-te* in *hasit-te yasumu*. We can insert such adverbial expressions as *sukosi* “a little,” *gofun* “for five minutes,” *kokode* “here” or what have you.

I argue, therefore, that in such cases where there are two full verbs with *-te* in between, there is no close-knit relationship between V1 and V2 so that such a coordinated V1 + *te* + V2 structure is quite different from the case of BV + AA which has a close-knit structure and where only BV can take an argument/arguments, because AA takes no argument, as already discussed above. To distinguish the two different structures, I put no hyphen right after the particle *-te* in the coordinated structure like *hasit-te gofun yasumu* “to run and take a rest for five minutes,” whereas in the BV + AA structure I put hyphens after a BV and before an AA like *hasit-te-oku*. In the coordinated structure V1 + *te* + V2, a whole variety of morphemic insertions are theoretically possible. Quite naturally, both V1 and V2 take arguments in such a coordinated structure.

In addition, a potential list of such V2 in the context of coordination is not like a

small list of AAs which always express verbal aspects of BV, but on the contrary, the list of V2s covers a wide variety of lexically compatible full verbs: *hasit-te geemu-ni katu* “to run and win the game,” *hasit-te hannin-o tukamaeru* “to run and arrest the culprit,” and so on.

These are the reasons why I want to make a clear distinction between the ordinary combination of V1+ *te* V2 and the close-knit structure of BV + AA, and why I treat as AAs belonging to the BV + AA structure those V2s which do not take argument(s) by themselves and form a very small group of auxiliaries expressing grammatical aspects only.

When dealing with what I call BV + AA structure, many native Japanese grammarians like Kindaichi (1950), Takahashi (1969) and others often speak of what they call *hojodoosi* (lit. auxiliary verbs, what I call AAs) *te-iru*, *te-aru*, *te-oku*, etc., with the conjunctive particle *te* which theoretically should be part of the V1 or BV such as *hasiri-* (from *hasiru* “to run”), has been morphophonemically changed to *hasit-* because of the immediately following conjunctive particle *te* and accordingly the particle *te* should be grouped together with *hasit-* first, forming the first syntagm *hasit-te* (to use Saussurian terminology). AA is then affixed to this syntagm to form the entire structure of BV + AA. Thus, in terms of the syntagmatic hierarchy here, *te* is first to be grouped with the *renyookei* or conjunctive form *hasit-*, and the resultant syntagm *hasit-te* is then combined with AA *-iru*, *-aru*, *-oku*, etc. But most native Japanese linguists attach *te* to all such AAs, in order to make a clear distinction between these AAs and the homonymous ordinary verbs (V2) which look identical with AA but whose functions and meanings are quite different. The latter examples are *-iru* “there is/are” [referring to animate beings], *-aru* “there is/are” [referring to inanimate beings], and *-oku* “to place, put.” When we examine the corresponding AAs homonymous with them, their grammatical functions are auxiliary to the preceding BV (V1 + *te*), their meanings aspectual, and their number extremely limited: *-iru* [with progressive/perfective aspects], *-aru* “to have been done”, *-oku* “to do (something) in advance,” etc.

Now, we want to assess the practical value of AAs not as *-iru*, *-aru*, *-oku*, etc., but as *teiru*, *tearu*, *teoku* etc. [with even hyphens eliminated after *te*]. There is an advantage that by attaching the particle *te* to these aspectual affixes, the resultant forms with *te* can readily be identifiable as AAs and by further eliminating a hyphen after the particle *te*, AAs can be presented in a much simpler “streamlined” manner, and that there is an additional advantage of these forms being easily identifiable by native Japanese grammarians as well.

For these reasons, such forms as *teiru*, *tearu*, *teoku*, etc. will be adopted as AA forms to be discussed and analyzed in the paper. Wherever a more minute and accurate analysis becomes necessary, hyphens will be introduced not only after the particle *te* of *teiru*, *tearu*, *teoku*, etc. but before it. Thus my practice of hyphenating in a case like *hasit-te-oku* will be preserved. Otherwise, when a certain AA needs to be mentioned, for example,

a form like *teoku* will be used for convenience' sake.

To sum up, I have given evidence to support that structure BV + AA is a close-knit unit. It looks like as if there were counterexamples, but when these are examined closely, they are actually not. One such “counterexample” is an insertion of adverbial elements such as *sae* “even,” *mo* “too” or *saemo* “even ...to.” However, this insertion does not affect the “unity” of the structure BV + AA.

My central claims are as follows: (1) structure BV + AA is a single unit, (2) AAs have roles to choose BVs to be combined with, (3) AGENT argument plays an important role in determining the meaning of the structure BV + AA *te-tiru*, and (4) by introducing Grimshaw's theory of a-structure for the analysis of the aforementioned structure, I can elucidate the difference in meanings between the two structures which seem exactly identical in structures, the number of arguments and the argument itself. I can explain the difference by introducing aspectual dimension such as “state” and “change of state” in terms of Grimshaw's a-structure. I refer to her a-structure briefly later in this section.

In 2., I am going to describe firstly Base Verbs (BVs) or native Japanese verbs, and in 2.1., arguments BVs take. In 2.2., I refer to Sino Japanese Verbs (hereafter Sino Verbs) which I have excluded from BVs I deal with, and explain why I have excluded Sino Verbs in this paper. In 3., I will discuss Japanese aspectual affixes and especially the three affixes I have chosen to examine closely. In 4., I refer to Grimshaw's theory of argument structure and Grimshaw's and Mester's Argument Transfer, and mention how I modify their theories to make them fit for the structure BV + AA in Japanese. 5 is conclusion.

## 2. Base Verbs (or BVs) or Native Japanese Verbs

A BV in Japanese consists of a verbal stem and an ending. Based on verbal stems, namely, whether the verbal stem ends with a vowel or a consonant, we classify BVs into two major classes: Class I BVs which have consonant-final stems named *godan-katuyoo* or five vowel affix (mostly infix) -gradation conjugation [with-*u*, -*a*/*-o*, -*i*, -*e* conjugational vocalic alternation directly affixed to the consonant stem] such as *kak-u* “to write,” *kak-a-nai* “do not write,” *kak-i-masu* “I/He write(s)” (*masu* is a polite auxiliary), *ka-i-te* (< *kak-i-te*) “write(s)” and/or “writing” (*te* is a conjunctive particle) etc. *Kak-* is a verbal stem and -*u*(-) in *kak-u*, -*a*- in *kak-a-nai*, -*i*- in *kak-i-masu* or *ka-i-te* are all endings. We call *godan-katuyoo* because we have five (mostly infix) vowels, for example, between verbal stem *kak-* and ending like *masu* as in *kak-i-masu*. The vowel -*u* in *kak-u* is the only exception where *kak-u* can be used as a “finite” verb as in *Kare-ga tegami-o kaku* (he-Nom-letter-Acc-write-pres) “He writes a letter.” Class II BVs have vowel-final stems and are subclassified into two subclasses: namely, Class IIa *kami-itidan-katuyoo* or higher vocalic conjugation which ends its stem with a high front vowel *i*-such as *mi-ru* “to see,”

and Class IIb *simo-itidan-katuyoo* or lower vocalic conjugation ending its stem with *e*, such as *ake-ru* “to open.” The traditional order of Japanese vowels is *a, i, u, e, o* written vertically so that the vowel *i* is one step higher than the vowel *u* in the middle, while the vowel *e* is one step lower than the vowel *u* in the middle. *U* is an affirmative-sentence final affix. Further, BVs conjugate depending on what follows such verbal stems, but not different grammatical persons, numbers or genders such as we often see in Indo-European languages.

For example, *kak-u* “to write” is a Class I BV and conjugates *kak-a-nai* if a negative auxiliary *-nai* follows the verbal stem *kak-*, *kak-i-masu* “I/He write(s)” with the polite auxiliary *-masu* following, *ka-i-ta* (< *kak-i-ta*) with the past auxiliary *ta* following, and *ka-i-te* (< *kak-i-te*) “write(s) and” or “writing,” with the conjunctive particle *te* following. The last form *ka-i-te* is called *renyookei* or a conjunctive form. All the verbal elements including AAs are combined with *renyookei* with or without the conjunctive particle *-te*. BVs in each Class contain both transitive and intransitive verbs.

I argue that I classify BVs into following five classes based on arguments each BV takes. To distinguish arguments which Grimshaw (1990) has adopted, I use capital letters for the arguments which I deal with in this paper.

(2) (a) Ditransitive (AGENT, GOAL, THEME)

John-ga	Taro-ni	eigo-o	osie-ru
John-Nom	Taro-Dat	English-Acc	teach-pres

“John teaches English to Taro.”

(b) Transitive (AGENT, THEME)

John-ga	mado-o	ake-ru
John-Nom	window-Acc	open-pres

“John opens the window.”

(c) Unergative (AGENT)

John-ga	hasi-ru
John-Nom	run-pres

“John runs.”

(d) Unaccusative (THEME)

Hana-ga	sak-u
flower-Nom	bloom-pres

“Flowers bloom.”

(e) Psych-verb (EXPERIENCER, THEME)

John-ga	kaminari-o	kowagar-u
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John-Nom thunder-Acc scare-pres  
 “John is scared of thunders.”

The reason I adopted this verb classification is that AGENT plays an important role. In the next subsection, I will discuss and analyze the arguments I deal with in the paper.

### 2.1. Arguments which BVs Take

In the last section I briefly discussed the verb classification I have adopted and the arguments that BVs in each Class take. They are AGENT, GOAL, THEME and EXPERIENCER. Some Japanese grammarians may propose that there should be some more arguments named “beneficiary” or “patient.” I argue that to examine the structure BV + AA and to make a clear distinction between two structures that are seemingly alike, it is important to limit the number of arguments necessary for my discussion. Especially I will examine BVs which take both AGENT and THEME or BVs which take either THEME or AGENT.

Let us examine the following examples. A BV such as *ake-ru* “to open” takes both AGENT and THEME as its arguments and it can be combined with AA *te-oku* such as *ake-te-ok-u* (open-AA-pres) “to open (the window) in advance” whereas a BV which takes only THEME as its argument such as *sak-u* “to bloom” cannot be combined with AA *te-oku* as in \**sai-te-ok-u*. On the other hand AA *te-iru* can be combined with almost any BVs. However, the structure BV + AA *te-iru* has aspectually different meanings, and such differences stem from the arguments the BV in question takes. If such a BV takes both AGENT and THEME or only AGENT, the whole structure BV + AA has either progressive or perfective meaning, while if BV in the structure BV + AA takes no AGENT as in the case Unaccusative or Psych-verbs, the whole structure never implies progressive or perfective meaning, but simply expresses “state” (not “change of state” in terms of Grimshaw’s a-structure). From the examples I have given above, AGENT and THEME, especially AGENT plays an important role to distinguish two structures BV + AA, one BV takes both AGENT and THEME or only AGENT, and the other BV takes argument(s) other than AGENT. Only the former structure has either progressive or perfective meaning, while the latter expresses “the state.” Further I argue that the verb classification based on the argument(s) a BV takes tells us what kind of combinations of BV + AAs are grammatically allowed, which combinations of BV + AA are not, and that the argument(s) taken by a specific BV combined with an AA is/are determined by the role of such an AA in the structure BV + AA. In addition, the subject-marker *-ga* in Japanese does not always indicate that the NP that precedes it is the subject, but sometimes shows that the NP can be an object, depending on a specific environment as given below.

- (3) Boku-wa mizu-ga hosii  
 I-Top water-Nom want-adj  
 “As far as I am concerned, water is desired.”(lit.)

Sentence (3) derives from sentence (4) that underlies (3) as given below.

- (4) Boku-ga mizu-o hosi-u  
 I-Nom water-Acc want-pres  
 “I want water.”

Sentence (4) is rather a literary expression seldom used colloquially, and thus sentence (3) is used instead. In sentence (3) above *boku* is Topic-marked, and it is not an argument. In Japanese, if the sentence has only one argument, the argument is *ga*-marked, in other words, it gets nominative case, irrespective of the kind of the argument the BV in question takes. There are further examples similar to sentence (3) above. Thus “case-markers” in Japanese such as *-ga, -o* etc., are not always dependable for determining the functions of such “case-marked” NPs in a sentence. On the other hand, to specify the kinds of arguments each BV takes is a very useful device for analyzing the roles of the nouns in a sentence. Similar examples to (3) are given in German and Old English below.

- (5) (German) Das Buch gefällt mir.  
 the (n.)-Nom book-Nom like-pres I-Dat  
 “I like the book.”

- (6) (Old English) Sêo bôc lîcath mê  
 the (f.)-Nom book-Nom like-pres I-Dat  
 “I like the book.”

In these two examples above, the “actors” are expressed in the dative case. There is an interesting similarity between these and the Japanese example (3) above.

## 2.2. On Sino-Japanese Verbs

Sino-Japanese verbs are those whose principal morphemes (usually written in two Chinese characters) are of Chinese origin, with the Japanese verbal element *-suru* “to do” added to them. Such principal Sino morphemes usually consist of two Chinese characters. Together with a light verb *-suru*, they can function as verbs. They could be either transitive or intransitive. A pair of Chinese characters forming the principal “verbal stem” followed by native Japanese verbal element *-suru* represent, therefore, the basic structure of Sino Japanese verbs (hereafter Sino verbs). What complicates

the nature of the Sino verbs is the fact that the “verbal stems” written in two Chinese characters sometimes show their internal grammatical relationship typical of Chinese grammar. These two-character verbal stems, roughly speaking, have their internal structures of any of the four types mentioned as follows. Type A: V-NP, Type B: V-V, Type C: Adv-V, and Type D: Adj-V.

When one deals with such Sino verbs, there are problems and complications arising from the fact that these Sino verbal stems (hereafter VS) have their own internal structures. Type A VSs, for example, contain an object NP or Grimshaw’s Theme, and the word order here is V-NP, which means that the verb precedes the NP, a typical Chinese word order. So when such a Sino verb form is combined with two objective case NPs: one outside or before such Sino-VS, the other inside the Sino-VS itself: An example is given below.

- (7) Type A (V-NP): *resutoran-o*      *kaiten-suru*  
                          restaurant-Acc    open-store(n.)-do  
                          “to open a restaurant”

This Type A VS contains an NP within itself, but when combined with *-suru*, it can take extra object NP like *resutoran* “restaurant.” What complicates the matter is the fact that the VS *kaiten* of this Sino verb itself sometimes can function as an NP meaning “opening of a store/store-opening” so that it is also possible to say *kaiten-o suru*, as given below.

- (8) Type A VS as NP: *kaiten-o*                      *suru*  
                          store-opening-Acc    do  
                          “to open a store”

This Type A VS used as NP can be preceded by another NP with the particle *no* “of” and form a sentence as given below.

- (9) NP + *no* + Type A VS: *makudonarudo-no*    *kaiten-o*                      *suru*  
                          McDonald’s-of                      store-opening    do  
                          “to open (the store of) McDonald’s”

The examples just given above are eloquently telling us how complicated the description of the problems of Argument Structure would become, once such Sino-Japanese verbal stems (VSs) are introduced in my analysis of the BV + AA structure, which is in fact the central theme of this paper. This is the very reason I have decided not to include Sino verbs in the BV of my BV + AA structure.

However, a brief survey of all the types of Sino verbal stem is given below to give a

bird's eye view of such Sino VSs.

[Type A] V-N: *kaiten* (to open + store), *kaijoo* (to open + place), *kaijoo* (to open + lock), *kaijoo* (to open + castle), *hassin* (to send + message)

[Type B] V-V: *tentoo* (to roll + to fall), *hikoo* (to fly + to go), *senkoo* (to choose + to consider: to screen), *senkoo* (to dive + to go: to go undersea), *senden* (to make known widely + to tell: to advertise)

[Type C] Adv-V: *kootoo* (highly + to rise: to skyrocket), *teimei* (lowly + to waver: to hang low), *senkoo* (in advance + to go: to precede), *senkoo* (in advance + to attack: to bat first), *kuuten* (in vain + rotate: to proceed ineffectively)

[Type D] Adj-V: *rooka* (old + to become/turn), *kyooka* (strong + to make: to strengthen), *jakka* (weak + to make: to weaken), *kooka* (hard + to make: to harden), *denka* (electric + to make: to electrify)

What I want to exclude is a light verb *suru* in terms of Grimshaw's and Mester's theory of Argument Transfer. On the other hand, I include "heavy" verb *suru*, in the category of BVs, such as *inemuri-o suru* (doze (noun) -do) "doze."

### 3. Japanese Aspectual Affixes (AAs)

As I have discussed AAs in 1.1., AA is always combined with BV, in other words, AA is a second V of compound verbs in V1 + V2 construction. The combined structure has two forms: (1) V1 + V2 and (2) V1 + *te* + V2. The former is *te*-less compound verbs and the latter is compound verbs with *te* between V1 and V2. Both V2s in V1 + V2 and V1 + *te* + V2 are regarded as AAs if the second V functions as an auxiliary which takes no argument itself, loses its original lexical meaning and adds only an aspectual meaning to the preceding BV. Further, *te* in the second structure like V1 + *te* + V2 is semantically an empty morpheme, its main grammatical function being a kind of connector to bring together the two verbal elements, namely, V1 or BV that precedes it and V2 or AA that follows. If *te* functions as a conjunct particle, it carries a conjunctive meaning "and." In that case V2 in V1 + *te* + V2 construction is not regarded as AA in terms of my "AA" definition because V1 and V2 are combined with this "coordinate" particle and thus V2 is a full verb just as V1. AAs I deal with are V2 in the combination V1 + *te* + V2 where *te* never functions as a "coordinator."

For a quick identification of such AAs preceded by the particle *te* I adopt the appellation, "*te*-V2 form" or "*te* attached forms," like *teiru*, *tearu*...etc.

In this section, first, I enumerate all the AAs and the meaning of AAs. Then I discuss which BVs are able to be combined with the (*te*-attached) AAs in question. Lastly I dis-

cuss why I have chosen the following three AAs such as *teiru*, *teoku* and *tearu* to examine the structure BV + AA, where the particle *te* is “tacitly” appearing in the middle of such a structure.

### 3.1. AAs with *te*

In 3., I discussed which V2 should be regarded as AAs. Following the criteria, I am going to discuss the seven V2s or AAs.

- (a) *teiru* which has perfective, inchoative, or progressive meanings whereas *iru* as a full verb means “to be.”
- (b) *tesimau* means “to finish V1-ing” whereas *simau* as a full verb means “to put away.”
- (c) *teoku* implies “to do (something) in advance” whereas *oku* means “to put.”
- (d) *tekuru* means a transition process which is perceived to be directed toward the speaker such as *mie-tekuru* (appear-AA) “to become to appear” whereas *kuru* means “to come.”
- (e) *teiku* also means a transition process being often observed by the speaker, whereas *iku* means “to go.”
- (f) *temiru* means “to try (to do)” whereas *miru* means “to see.”
- (g) *tearu* implies “to have been done” whereas *aru* means “to be” or “to exist.”

Now let us examine which verb Classes can be combined with which *te*-attached AAs. Five verb Classes are repeated here.

- (10) (= 2) (a) Ditransitive (AGENT, GOAL, THEME)
- (b) Transitive (AGENT, THEME)
- (c) Unergative (AGENT)
- (d) Unaccusative (THEME)
- (e) Psych-verb (EXPERIENCER, THEME)

AA *teiru* is combined with any of the BVs given above, but the meaning of the structure BV + AA changes depending on which Class of verbs is combined with the AA in question. Only BVs which take AGENT as one of its argument(s) have either perfective or progressive meaning, but if BVs which take argument(s) other than AGENT (i.e. Unaccusative or Psych-verb) are combined with AA *teiru*, then the structure BV + AA means only “state.”

AA *tesimau* behaves like AA *teiru*, that is, AA *tesimau* can be combined with any BVs, but the structure BV + AA means completed action if BV in question takes AGENT as one of its argument(s) (i.e. Ditransitive, Transitive and Unergative) such as *tabe-tesimau* (eat-AA) “to finish eating,” while the structure BV + AA means “resultant state,” such as *okot-tesimau* (get angry-AA) “to have gotten angry” if BV in the structure BV + AA takes argument(s) other than AGENT (i.e. Unaccusative or Psych-verb).

Two AAs, *teiru* and *tesimau* can be combined with any BVs, whereas AA *teoku* can only

be combined with BVs which take AGENT (and THEME) as their argument(s), such as *hon-o yon-deoku* (< *yomi-teoku*) (book-Acc-read-AA) “to read the book in advance.”

AA *tekuru* shows an interesting behavior. First let us look at examples given below.

- (11) Taro-ga hiru-gohan-o tabe-te-kuru-to,  
Taro-Nom lunch-Acc eat-AA-When  
“When Taro finished his lunch and returned,”
- (12) Okome-ga nakunat-te-kuru  
rice-Nom decrease-AA-pres  
“Rice is getting decreasing (Adj) /getting scarce.”
- (13) Taiyoo-ga de-te-kuru  
sun-Nom come out-AA-pres  
“The sun is rising.” (“The sun is coming out.” (lit.))
- (14) ??John-ga kaminari-o kowagat-te-ki-ta  
John-Nom thunder-Acc scare-AA-past  
“John was getting scared of thunders (lit.).”

BV *taberu* in (11) is Transitive, but *tabe-te-kuru* is not a structure like BV + AA *tekuru*, but VI-*te* V2, in other words, two verbs are combined, *te* is a conjunct meaning “and”, the meaning of *tabe-te-kuru* is “to eat and return.” BV *nakunaru* “to get scarce” in (12) and *deru* in (13) “to come out” are Unaccusatives. *Te-kuru* in *nakunat-te-kuru* in (12) does not mean “to come,” but means state of “getting scarce” when AA *te-kuru* is combined with BV in question, where-*te* is an empty morpheme and does not mean “and.” In (14) AA *te-kuru* is combined with psych-verb *kowagaru* “to be scared,” and question marks mean that sentence (14) might be acceptable for some native speakers, but might not be so for another. At least, in my dialect, in the very limited environment, it might be acceptable. For example, adult people are telling a dreadful story to a child/children, for the first time, the child/children seem(s) calm, but the adult continues to tell dreadful stories over and over again. Finally the child/children became very scared of the stories. Then sentence (14) is acceptable. Otherwise I use the following sentence instead.

- (15) John-ga kaminari-o kowagaru-yooni-naru  
John-Nom thunder-Acc be scared-state-become-pres  
“John has come to be scared of a thunder/thunders.”

To sum up, AA *tekuru* is only combined with Unaccusative (and psych-verb). To be

more exact, AA *te-kuru* is combined with BVs which means “gradual change of state” such as *fueru* “to increase,” *heru* “to decrease,” *ookiku-naru* “to enlarge (vi.),” etc.

Now let us examine the combination of BV + AA *te-iku*, compared with V1 - *te* - V2

- (16) John-ga ringo-o tabe-te-it-ta  
 John-Nom apple-Acc eat-and-go-past  
 “John ate an apple and went (or left).”
- (17) Taiyoo-ga sizun-de (< sizumi-te)-it-ta  
 sun-Nom set-AA-past  
 “The sun was setting.”
- (18) \*Taiyoo-ga de-te-it-ta  
 sun-Nom come out-go-past
- (19) \*John-ga kaminari-o kowagat-te-it-ta  
 John-Nom thunder-Acc thunder-AA-past

Tabete-*itta* in (16) has V1 - *te* - V2 structure which consists of two full verbs connected by conjunctive *te* “and” and thus it is not the structure BV + AA. As *te* is a conjunct, *itta* (< *iku*) has a full verb meaning “to go,” and thus *itta* here has no aspectual meaning. On the contrary, *sizunde-itta* in (17) is the structure BV + AA, where *itta* (< *iku*) does not have the original meaning “went,” but expresses an aspectual meaning, in other words, it means “a gradual change of state.” *De-te-itta* in (18) is semantically ill-formed. Because *deru* means “the state of coming out” and *itta* means “a gradual change of state,” but means “to become disappearing from sight.” The combination of “coming out” and “disappearing” is discrepant. The combination of psych-verb and AA *te-iku* in (19) is less acceptable than the one with AA *te-kuru*.

AA *tearu* is only combined with a BV which takes both AGENT and THEME as its argument, though in the combined structure AGENT is suppressed. Examples are given in below.

- (20) mado-ga ake-te-aru  
 window-Nom open-AA-pres  
 “The window has been opened/has left opened.”
- (21) \*mado-ga ai-te-aru  
 window-Nom open(vi.)-AA-pres

*Ake* (< *akeru*) in (20) is Transitive and (20) is grammatical though AGENT does not

appear in the surface, whereas *ai* in (21) (which comes from *aku* “to open” (vi.)) is Unaccusative and is combined with AA *te-aru*. The resultant structure is ungrammatical. I discuss closely later in this section.

AA *te-miru* “to try (to do)” is only combined with BV which takes AGENT. An example is given below.

- (22) John-ga      doa-o      ake-te-mita  
       John-Nom    door-Acc    open-try-past  
       “John tried to open the door.”

*Miru* in the structure *ake-te-miru* in (22) does not mean “to see,” *-te* is not a conjunct “and” either.

### 3.2. Three AAs or *Teoku*, *Tearu* and *Teiru*

In the last subsection, I enumerated seven AAs and discussed which AA is combined with which BV. I argue that whether the BV in question takes AGENT as one of its argument(s) is crucial for determining which AA is combined with which BV. Especially I argue that the difference in meaning between the same structures BV + AA *teiru* comes from the kind of the argument which occupies the subject position in the sentence, in other words, whether the BV takes AGENT or not. If the BV takes AGENT, then the sentence containing the structure BV + AA has a progressive or perfective meaning, while if the BV takes other than AGENT, the sentence never has such meanings.

Out of seven AAs, I examine the following three AAs closely: *teoku*, *tearu* and *teiru*. This is so because the structures BV + AA *teoku* and BV + AA *tearu* show us characteristic aspectual affixes (AAs) such as (1) the structure is a close-knit unit, not a compound verb, (2) what role each AA plays in the structure BV + AA, (3) why argument structure is necessary for analyzing the structure BV + AA correctly, (4) Agent plays an important role for determining the meaning of the structure BV + AA *teiru*, or the structure BV + AA *tearu*, (5) behaviors of three structures such as BV + AA *teoku*, BV + AA *tearu* and BV + AA *teiru* will give us better solutions to the problems, otherwise such solutions must depend solely on the “meaning.”

Let us discuss briefly the characteristic of AAs following the numbers given above.

As for (1), as I discussed in the last section, there is a big difference between the structure BV + AA (V1 + *te* + V2) and a compound verb (V1 + *te* + V2). Firstly *te* in the structure BV + AA is semantically an empty morpheme, whereas *te* in a compound verb has a conjunct meaning “and.” Secondly, V2 in the structure BV + AA has only aspectual meaning and does not take any argument itself, whereas V2 in the compound verb is a full verb, has a “lexical” meaning and takes its own argument(s). Thirdly, V2 in the structure BV + AA is limited in number or closed-class, whereas V2

in a compound verb is not. Fourthly, AA *tearu* is only combined with a BV which takes AGENT and THEME as its arguments, whereas *aru* as a full verb takes only an inanimate subject, in other words, THEME as its argument. AA *teiru* is combined with any BV, but *iru* as a full verb takes animate subject.

As for (2), AA “selects” a BV which is combined with, and “adds” an aspectual meaning to the BV to be combined with. For example, *tabe-te-oku* (eat-AA-pres) “to eat (something) in advance” is the structure BV + AA, whereas *tabe-te-neru* “to eat (something) and sleep” is a compound verb. V2 in BV + AA does not have its original lexical meaning “to put,” whereas V2 *neru* “to sleep” in a compound verb has its own lexical meaning “to sleep.” AA *te-oku* has not only an aspectual meaning, but also a volitional meaning. For example, AA *teoku* is only combined with a BV which takes AGENT (and THEME) as its argument(s) such as *tabe-te-oku*. *Taberu* “to eat” is Transitive, and takes AGENT and THEME as its argument, thus combination *tabe-te-oku* is well-formed. Whereas *saku* “to bloom” is Unaccusative and takes only THEME as its argument, thus the sentence which includes \**sai-te-oku* (< *saki-te-oku*) (to bloom-AA-pres) becomes ill-formed.

As for (3), three AAs give us a clear distinction between AGENT, or an external argument and other arguments or internal arguments. Firstly, AA *te-oku* is only combined with a BV which takes AGENT (and THEME) as its argument(s). Secondly, AA *te-aru* is only combined with a BV which takes both AGENT and THEME as its arguments, but the resultant combined structure BV + AA has only THEME as its argument. The resultant structure is similar to the structure BV + AA *te-iru* where BV is Unaccusative and takes only THEME as its argument. Examples are given as in (23) and (24) below.

- (23) (= 20) mado-ga            ake-te-ar-u  
                  window-Nom    open-AA-pres  
                  “The window has been opened (by someone)/has been left opened.”

- (24)    mado-ga            ai-te-ir-u  
                  window-Nom    open(vi.)-AA-pres  
                  “The window is open.”

*Akeru* “to open” in (23) is Transitive, but I argue that AGENT must be suppressed when *akeru* is combined with AA *te-aru*. As a result *ake-te-aru* implies “the change of state,” in other words, someone has opened the window, as a result, the window is being left opened. On the other hand, *aku* “to open” in (24) is Unaccusative, does not take AGENT, thus *aku* is only combined with AA *te-iru*. The combined structure *ai-te-iru* means adjectival “to be open,” in other words, the structure in question means only “state of being open.” However, if AA *te-iru* is combined with Transitive *akeru*, the com-

bined structure has either perfective or progressive meaning. It can have “iterative” meaning if the structure cooccurs with an adverbial like *dondon/tugi-kara tugi-e-to* “one after another.” An example is given below.

- (25a) John-ga mado-o ake-te-ir-u  
 John-Nom window-Acc open-AA-pres  
 “John is opening the/has opened the window.”
- (25b) John-ga mado-o tugi-kara-tugi-e-to ake-te-ir-u  
 John-Nom window-Acc one after another open-AA-pres  
 “John is opening the windows one after another.”

Examples (23)-(24) show us differences between BVs and such differences depend on whether the BV in question takes AGENT as one of its argument(s) or not. Further AA selects a BV which is combined with. Examples (25a) and (25b) show us the differences in meaning is determined by adverbials such as *tugi-kara tugi-e-to*. In (25a), if adverbial *moo* “already” cooccurs with *ake-te-iru*, sentence (25a) has only “perfective” meaning, while (25a) cooccurs with adverbial *ima* “now,” sentence (25a) has only “progressive” meaning. These adverbials which cooccur with the structure BV + AA *teiru* where the BV takes AGENT as one of its argument(s), I call Obligatory Adjuncts.

As for (4), as I discussed above, BV which takes AGENT as one of its arguments can be combined with three AAs such as AA *teoku*, AA *tearu* and AA *teiru*. The meaning of the structure BV + AA *teiru* is determined by whether BV takes AGENT as one of its argument(s) or not. The argument the structure BV + AA *tearu* takes is the same argument the structure BV (= Unaccusative) + AA *teiru* takes. But the meaning is different, and this difference must be due to the structural difference. That is to say, the former BV *akeru* “originally” takes two arguments AGENT and THEME, but AGENT is suppressed when the BV is combined with AA *tearu*. On the other hand, the latter BV *aku* takes only THEME as its argument. Thus resultant structures are actually different in meaning, though on the surface they look alike structurally because of the suppressed argument AGENT.

As for (5), aforementioned examples will be partly included, and the comparison of the internal structures, namely, BV + AA *te-oku*, BV + AA *te-aru* and BV + AA *te-iru*, thus reveals to us, for the first time, a convincing solid piece of evidence for solutions to the problems which are left unsolved. However, I will give the more detailed account of such evidence in the next paper.

#### 4. Argument Structure and A-Structure of the Structure BV + AA

In 1., I have argued that the structure BV + AA or V1 + *te* + V2 is a close-knit single

unit, though a couple of adverbs such as *sae* “even,” *mo* “too,” and *saemo* “even...too” can be inserted right after the particle *te* and that AA or V2 is regarded as an aspectual affix (AA) which does not take its own argument. In contrast, V2 in a compound verb such as V1 + *te* + V2 construction can be regarded as a full verb since V2 takes its own argument(s) and *te* serves as a conjunct “and.” The role of AA in the structure BV + AA is not only to add an aspectual meaning to the BV when the BV is combined with the AA in question, but also to determine or regulate which BV the AA in question is combined with. As a result, the number and the kind of argument(s) the BV takes and those the structure BV + AA takes do not basically change. Now that the structure BV + AA behaves as a single unit, I can introduce Grimshaw’s theory of Argument Structure (1990) to explore the properties of the structure BV + AA and AA itself, though her a-structure is primarily intended for the syntactic analysis of the English verb.

Before the application of her theory of a-structure to the structure BV + AA, the modified version of Grimshaw’s and Mester’s theory of Argument Transfer (1988) is needed for the correct analysis of the structure BV + AA.

In 4.1, I will explain briefly the theory of Argument Transfer and how I modify this theory to make it fit for analyzing the structure BV + AA. In 4.2.1, first I will give a brief history of Argument Structure and, in 4.2.2., I will also briefly explain Grimshaw’s a-structure and show how her theory is applied to the structure BV + AA.

#### 4.1. Argument Transfer and the Structure BV + AA

Grimshaw’s and Mester’s theory of Argument Transfer (1988) is a theory to explore the predicate-argument complex associated with *suru* “to do” and to show that its properties can be derived from the interaction of complex predicate formation with a particular theory of a-structure representation. Complex predicate is formed by the combination of Sino-Japanese verbs (hereafter Sino Verbs) and light verb *suru* “to do.” Though Grimshaw and Mester do not distinguish the type of Sino-Verbs (which I explained in 1.2.2. briefly), Sino Verbs usually have the following four types: Type A: V-NP, Type B: V-V, Type C: Adv-V, and Type D: Adj-V.

According to Grimshaw and Mester, irrespective of internal structures of Sino-Verbs, their *suru* complex is a combination of originally Sino-Verbs + *suru*, where Sino-Verbs behave like the nominal theta-marker or noun, and *suru* is thematically incomplete or “light,” thus the noun “lends” argument to *suru*, turning *suru* into a theta-marker. They say that there are two argument transfers: (1) Complete Transfer where *suru* absorbs all arguments of the Noun, leaving the Noun with no theta-marking capacities. In this case all arguments are theta-marked by the Verb, *suru*. The illustration (16) in their paper is given here as (26) below. (2) Partial Transfer where noun such as *keikoku* “warn” retains the Theme role, and the transitive verb *suru* assigns the transferred roles Agent and Goal outside NP. Their illustration (13) is given here as (27) below.

- (26) (= 16) a. *keikoku* (Agent, Goal, Theme)  
 b. *suru* ( ) <acc>  
 c. *keikoku* ( ) + *suru* (Agent, Goal, Theme) <acc>

- (27) (= 13) a. *keikoku* (Agent, Goal, Theme)  
 b. *suru*( ) <acc>  
 c. *keikoku* (Theme) + *suru* (Agent, Goal) <acc>

Grimshaw and Mester (1988: 211) explains “light” verb *suru* functions as a bearer of verbal inflection for the clause and as a case assigner, allowing the Noun in its direct object to assign theta-roles in a verbal context. However, they do not distinguish the nominals which are combined with *suru* to make their “complex predicate.” They explains as follows: If the nominal is derived from Sino-Verbs, such as *keikoku* “warn” in (26) and (27), *suru* which is combined with *keikoku* is regarded as “light” verb.

However, I argue that *hanashi* in *hanashi-o suru* in (11) in their paper, repeated here as (28a) below is not a Sino-Verb, but a native noun derived from a verb *hanasu* “to talk.” Thus if the nominal *hanashi* “talk” is combined with *suru*, *suru* should not be regarded as a “light” verb, but a full verb in my classification.

- (28) (= 11) a. John-ga      Bill-to      HANASHI-o      shiteiru  
                   John-Nom    Bill-with    talk-Acc        *suru*  
                   ‘John is talking to Bill.’  
 b. Ya-ga            mato-ni      MEICHUU-o      shita  
                   arrow-Nom    target-to    hit-Acc         *suru*  
                   ‘The arrow hit the target.’

Further, if the internal structure of original Sino-Verbs is “intransitive” as in (28b) above, Complete Transfer is a “must,” in other words, there is no accusative marker *-o* between Sino-Verb and *suru*. As a result, *MEICHUU-o shita* must be replaced by *MEICHUU-shita* in (28b). The same interpretation holds *TOOCHAKU-o shita* ((28) in their paper) (arrival-do-past) “arrived.” *TOOCHAKU* is originally an intransitive Sino-Verb, thus *TOOCHAKU-o shita* has to be corrected like *TOOCHAKU-shita* “arrived.” In my analysis, both *TOOCHAKU-shita* and *MEICHUU-shita* take an argument THEME *den-sha* “train” and “*ya* “arrow” respectively.

Kageyama (1993: 276 ff.) also points out that each verbal noun (VN) (what I call a Sino verb) has its own internal structure and that it is possible to eliminate ‘Partial Transfer’ if he assumes that VN(= Sino Verb) takes all the arguments (except external) argument) and that the light verb *suru* takes only adjuncts (or adverbial elements) and that all the arguments which VN takes are transferred to the light verb *suru*. But he only analyzes the VN construction there, not the structure BV + AA.

As I have discussed the structure BV + AA being a close-knit single unit and AA being an affix, not taking argument(s), I assume all the argument(s) BV takes is/are transferred to the structure BV + AA, (not just to AA). In other words, I assume Complete Transfer when BV is combined with AA, just as we have seen in intransitive Sino-Verb *TOOCHAKU* or *MEICHUU* + “light” verb *suru*. If the argument(s) taken by BV and the argument(s) the same BV + AA are the same, what is then the structural difference between BV alone and the structure BV + AA? Let us examine BV *akeru* “to open” and the combination of BV *akeru* + AA *teoku*. BV *akeru* takes both AGENT and THEME and can passivize, whereas *ake-teoku* takes both AGENT and THEME, but cannot passivize. Examples are given as in (29) and (30) below.

- (29) (a) John-ga        mado-o        ake-ru  
           John-Nom    window-Acc    open-pres  
           “John opens the window.”  
       (b) mado-ga        John-niyotte    ake-rare-ru  
           window-Nom    John-by        open-pass-pres  
           “The window is opened by John.”
- (30) (a) John-ga        mado-o        ake-teok-u  
           John-Nom    window-Acc    open-AA-pres  
           “John opens the window in advance.”  
       (b) \*mado-ga        John-niyotte    ak-rare-teok-u  
           window-Nom    John-by        open-pass-pres

Why is sentence (29b) grammatical, but not (30b)? Ungrammaticality in (30b) stems from the presence of AA *teoku*. As I have discussed in the last subsection, AA selects a BV which is combined with it. In other words, AA *teoku* is combined with a BV which takes both AGENT and THEME. Sentence (30a) is grammatical, because *ake-teoku* has AGENT *John* and THEME *mado* as its arguments after all the arguments are transferred from the BV *akeru* when *akeru* is combined with AA *teoku*. On the other hand, (30b) is a passive counterpart of (30a), where AGENT is suppressed and it appears as an Adjunct *John-niyotte* “by John” in terms of Grimshaw (1990), thus (30b) becomes ungrammatical. (29b) and (30b) are good pieces of evidence that reveal to us the internal structural differences between *akeru* and *ake-teoku*.

Baker’s Verb Incorporation (1988: 177 ff.) seems to be an alternative analysis of the structure of BV + AA, where causative affix *sase* and the verb root (= what I call the verbal stem) are combined into a single word at some stage, namely a lexical item undergoes syntactic movement to be combined with another lexical item in the structure. I argue that this analysis does not hold for the structure BV + AA in two respects. Firstly, sentences given by Baker are Morphological causative constructions. He

assumes that morphological causatives are biclausal whereas the structure BV + AA behaves like a single unit which I discussed in 1.1. The number and the kind of arguments BV takes and those the structure BV in question + AA takes are exactly the same. The difference between BV and the structure BV + AA is in meaning and the behavior which is affected by an AA combining with a BV. Secondly, this difference in meanings can be elucidated by the interaction of aspectual analysis and thematic analysis, but not by Baker's structural analysis alone.

Hence, I assume that Complete Transfer is more suitable and necessary for the combined structure BV + AA to obtain transferred argument(s) from the BV in question.

#### **4.2. Grimshaw's Argument-Structure and the Structure BV + AA**

In 1.4., I discussed briefly the structure BV + AA which behaves like a close-knit single unit. In 1.4.1., I explained why the theory of Grimshaw's and Mester's Argument Transfer is necessary for the analysis of the structure of BV + AA.

In 4.2.1., I first explain Grimshaw's a-structure (1990), then in 4.2.2., I discuss how I apply her a-structure to the analysis of the structure BV + AA and demonstrate why her a-structure is the most ideal theory for the analysis of the structure BV + AA.

##### **4.2.1. Grimshaw's Argument Structure**

Grimshaw's definition of argument structure (a-structure) (1990: 1ff.) is as follows: a-structure refers to the lexical representation of grammatical information about a predicate. The a-structure<sup>1)</sup> of a lexical item is thus part of its lexical entry. Argument structure interfaces with two other kinds of representation. One is lexical semantic structure, which represents lexical meaning. The second representation which a-structure interfaces with is deep structure (d-structure). Argument structure is projected from lexical semantic structure, and d-structure is projected from a-structure and principles of X-bar theory. In the strongest possible theory the a-structure of a lexical item is predictable from its meaning, and the d-structure where the item appears is predictable from its a-structure in interaction with independent parametric characteristics of the language.

What distinguishes Grimshaw's view of a-structure from other views of the argument structure is this: her theory of a-structure is a structured representation which represents prominence relations among arguments. The prominence relations are jointly determined by the thematic properties of the predicate (via the thematic hierarchy) and by the aspectual properties of the predicate<sup>2)</sup>. The external argument is the most prominent, and the internal arguments also have prominence relative to each other. She gives three pieces of evidence for positing a structured a-structure: theta-marking in a light verb, compound constructions and the behavior of the psychological verbs.

Grimshaw claims the structured a-structure has two dimensions: The Thematic Dimension and the Aspectual Dimension.

Let us look at her Thematic Dimension. She proposes that the thematic hierarchy is properly understood as the organizing principle of a-structures. Argument structures are constructed in accordance with the thematic hierarchy. She assumes a version of the hierarchy in which the Agent is always the highest argument. Experiencer is ranked next, the Goal/Source/Location, and finally Theme. One example given by her is shown below.

$$(31) (= 2) \textit{murder} \quad (x \quad (y) )$$

Agent    Theme

(31) indicates that an agentive verb like *murder* has the a-structure prominence relations, where Agent is always the most prominent argument. However, what we should bear in mind is that her a-structure contains no information about particular theta roles, but only information about the relative prominence of the arguments. Hence, two verbs with different theta roles but the same prominence relations will be indistinguishable as far as a-structure is concerned, a possible such example is given by her, an agentive predicate and a *fear* class of psychological predicate. Here she agrees that this provides precisely enough information to support theta-marking and lexical operations, which do not refer to specific theta role labels. Without structured a-structure, reference to thematic role labels seems to be indispensable.

However, the problem is that a-structures are incomprehensible if the thematic role labels are omitted, especially in the kinds of cases at issue here, where the a-structure and syntactic structure do not match. For purposes of maintaining comprehensibility, she uses thematic role labels to identify arguments. Then a-structure like (32b) (= 6b) is represented as (32a) (= 6a) for a convenient way.

$$(32) \text{ a. } (= 6a) (x \quad (y \quad (z) ) )$$

Agent    Goal    Theme

$$\text{ b. } (= 6b) (x \quad (y \quad (z) ) )$$

In (32), Agent (= x), the external argument, is the most prominent, and the internal arguments such as Goal (= y) and Theme (= z) also have prominence relative to each other. In other words, Goal is ranked next, and then Theme.

Theta-marking in light verb as one of three pieces of evidence she has given is discussed by Grimshaw and Mester (1988). According to Grimshaw and Mester, the Japanese light verb *suru* is thematically incomplete or “light,” when it is combined with an original Sino verb, where the Sino verb behaves like the nominal theta-marker or noun, the noun “lends” its argument to *suru*, turning *suru* into a theta-marker, and forms the *suru* complex. They call this the theory of Argument Transfer.

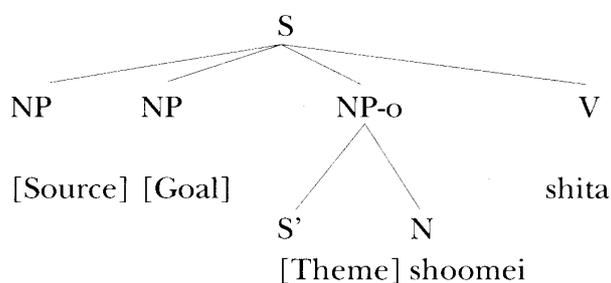
How they relate Grimshaw’s prominence theory of a-structure to the light verb *suru*

construction? An example is shown in (33).

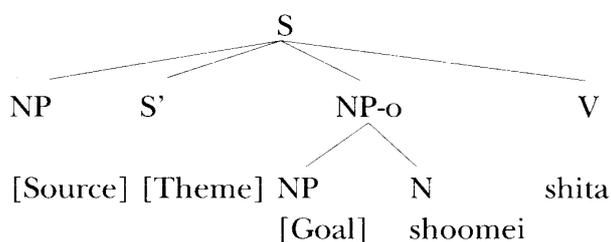
(33) a. (= 9a) Sono deeta-ga wareware-ni [[kare-no riron-ga  
 that data-NOM us -to he-GEN theory.NOM  
 machigatteiru-to] -no SHOOMEI] -o shiteiru.  
 mistaken be-C-GEN prove ACC suru  
 ‘That data proves to us that this his theory is mistaken.’

b. (= 9b) \*sono deeta-ga [kare-no riron-ga machigatteiru-to]  
 that data-NOM he-GEN theory-NOM mistaken be-C  
 [wareware-e-no SHOOMEI]-o shiteiru.  
 us -to-GEN prove -ACC suru

(34) (= 7)



(35) (= 8)



Grimshaw and Mester argue that the ungrammaticality of (33b) (= 9b) originates from the relative position of the arguments: the combination of an outside Theme and an inside Goal is ill-formed and that it is not the absolute positions of the individual arguments that are responsible for the ill-formedness. Grimshaw and Mester propose that Goal-Theme asymmetry is a reflection of the organization of a-structure and also claim that the asymmetry must be explained by theta theory and not by case theory, whereas Baker (1989: 545) proposes that the ungrammaticality of (33b) (= 9b) should be explained by case theory as follows: since the Theme usually gets marked with *-o* and this case marker is already assigned to the NP containing the theta-marking Noun and the Goal, no case remains to be assigned to the Theme. Grimshaw does not agree with Baker’s explanation.

However, I do not agree with Grimshaw’s explanation of her theta-marking in a light-verb for two reasons.

Firstly, as I mentioned in 2.2., each Sino verb has its own internal structure; thus it is necessary to analyze the Sino verb in question first. Kageyama (1993: 206ff.) also points out that each Sino verb has its internal structure.

Secondly, as I pointed in 2.1. (examples (3) and (4)), the topic marker-*wa* serves as Nominative, Accusative, adverbial phrases etc., whereas the Nominative marker-*ga* serves not always as nominative marker, but as an Accusative marker in some case. I do not quite agree with Baker's account for the light verb, either. For an *o*-marked NP is not always the Theme, but sometimes the NP in question serves as an adverb which designates "direction." An example is given as in (36) below.

- (36) John-ga kono-miti-o aruk-u  
 John-Acc this-road-Acc walk-pres  
 "John walks along this road."

*kono-miti-o* in (36) is not an argument at all, but an adjunct meaning direction. Thus we cannot rely on case-markers. Instead I support Grimshaw's a-structure which explains prominence relations among arguments thematically and aspectually.

However, I propose that there is strong evidence to explain a structured a-structure: the examination of the structure BV + AA *tearu/teoku/teiru* explicates the structured a-structure and prominence relation among arguments which I discuss later briefly.

The second piece of evidence which Grimshaw claims is English compounds such as a grammatical example (1990: 14) like *gift-giving to children*, where the Theme is inside the compound and the Goal is outside, and an ungrammatical pair like ((1990: 14) \*Child-giving of gifts, with the Goal inside and the Theme outside. These compound constructions seem to be less related to the explanation of the structure BV + AA. Hence I do not go into details.

The last piece of evidence of psychological verbs is partly related to the analysis of the structure BV + AA. I discuss this later.

Grimshaw's structured a-structure explicates the structure BV + AA and the characteristics of AAs though I propose that different pieces of evidence should be given to explain the grammaticality and the ungrammaticality of the structure BV + AA.

Now let us look at Grimshaw's Aspectual Dimension.

As I have pointed out above, Grimshaw's a-structure contains no information about particular theta-roles but only information about the relative prominence of the arguments. Hence, two verbs with different theta-roles but the same prominence relations will be indistinguishable as far as a-structure is concerned. Let us give a pair of verbs cited from Grimshaw (1990:8).

- (37) (= 2) *murder* (x (y))  
 Agent Theme

(38) (= 3) *fear*            (x        (y))  
                                   Exp.      Theme

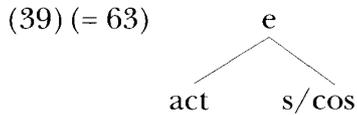
For an agentive verb like *murder*, a-structure prominence relations are those given in (37) above. For an agentive verb, the Agent is always the most prominent argument. The same prominence relations hold for psychological verbs like *fear* as in (38) above. In (38) the Experiencer is the most prominent argument and the Theme is less prominent. However, those two verbs have the same a-structure prominence relations. Grimshaw claims that if we look at the verbs mentioned above from aspectual dimension, the difference between Agent argument and Experiencer argument is distinguishable, namely, Agent is always the most prominent argument thematically and aspectually, whereas Experiencer in (38) is the most prominent thematically but not aspectually.

Grimshaw claims that she explores the interaction of thematic prominence with aspectual prominence, developing a theory of one [single (Eda)] class of the psychological predicates which explains many of their properties, and she thinks that this leads to a theory of external arguments which predicts properties of externals. Thus her theory will ultimately give us a clue to explain the grammatical behavior of various verb classes in Japanese. Accordingly Grimshaw's theory of hierarchically structured a-structure offers solutions to the problems concerning external arguments of both English and Japanese verbs. Further she discusses why two psychological predicates, that is, *fear* and *frighten* whose theta-roles are identical, but behave differently. In the *frighten* class which takes Experiencer and Theme as its arguments, the Theme is a cause, whereas in the *fear* class which takes the same arguments as the *frighten* class, the Theme is not a cause. If it is a cause, it must be realized as a subject. She argues that the difference between the *frighten* class and the *fear* class must be examined in terms of event structure or aspect. In Grimshaw's analysis Experiencer in the *fear* class is more prominent argument than Theme thematically and aspectually, whereas Experiencer in the *frighten* class is more prominent argument thematically, but not aspectually because Theme is a cause in the *frighten* class.

Before I give Grimshaw's event structure, I have to mention that Grimshaw explains that she excludes psychological verbs like *fear* and *please* in this analysis in her note 27 because of the complication which she discussed in 2.3.4. (Grimshaw 1990: 25ff.). In fact, as far as the structure BV + AA is concerned, psych-verbs do not any important role to distinguish AA *tearu* from other AAs such as AA *teoku*, because any psych-verbs can only be combined with AA *teiru* and they always imply "state." I will therefore not go into details of psych-verbs like *kowagaru* "to fear" except when such verbs are directly related to the analysis of the structure BV + AA.

According to Grimshaw (1990: 40) the aspectual dimension is a projection of an abstract event structure(e), which always includes two subparts, the first sub-event (act

(< activity)) and the second sub-event (s/cos(< state or change of state)) given as in (39) below.



Grimshaw claims that event template in (39) determines prominence, assigning the maximally prominent position in the aspectual dimension to an argument participating in the first sub-event, regardless of the actual lexical semantic representation of the predicate. If all events are constrained by this template, activities will always fit the first slot in the template, and an existential state or a change of state will always fit the second slot. Thus the single argument of an unaccusative will never count as maximally prominent and will never qualify as external.

Following the event structure in (39), the agentive predicates (both transitive and unergative) will have an aspectually and thematically most prominent argument, whereas the unaccusatives will lack a first sub-event and hence will lack an external argument. As for psych-verbs, I only refer to them when necessary.

Now let us look at the analysis of the verb classes Grimshaw has given shown below as in (40).

- (40) (= 64)
- a. *Transitive agentive*  

(x	(y)	)
Agent	Theme	
  - b. *Ditransitive*  

(x	(y	(z)	)	)
Agent	Goal	Theme		
  - c. *Unergative*  

(x)
Agent
  - d. *Psychological state*  

(x	(y)	)
Exp	Theme	
  - e. *Psychological causative*  

((x	(y)	)	)
Exp	Theme		
  - f. *Psychological agentive*  

(x	(y)	)
Agent	Exp	

g. *Unaccusative*  
 ( (x) )  
 Theme

Grimshaw posits the representations in (40), using the convention that an external argument is one surrounded by only one set of parentheses. However, neither unaccusatives as in (40g) nor the *frighten* class as in (40e) have such an argument thematically and aspectually, thus argument(s) is/are surrounded by two sets of parentheses which means the verb in question has only internal argument(s). The important thing for Grimshaw's theory of a-structure is a structured representation which represents prominence relations among arguments. The prominence relations are jointly determined by the thematic properties of the predicate and by the aspectual properties of the predicate, as a result, the structured a-structure offers solutions to the problems concerning external arguments, by grounding the concept of an external argument in a more articulated theory of a-structure representation. The theory relates the notion of an external argument to relationships among other arguments. Every argument in an a-structure has a certain prominence in each dimension (i.e. thematic/aspectual). An external argument is an argument that is most prominent in both dimensions. Here I pick up three out of answers or solutions given by Grimshaw, which are closely related to the explication of the properties of the structure BV + AA. Firstly, theta-marking gives an answer to the definition of an external argument, since theta-marking always proceeds from the least to the most prominent, namely, to the external argument. Secondly, an external argument is most prominent aspectually and thematically. Thirdly, from the two dimensional account we can predict whether a predicate has an external argument or not, and if so, which of its arguments qualifies. An Agent must always be external if it is present. Agent will always count as external and an agentive verb will always have an external argument. Grimshaw's a-structure also explicates the status of Theme argument which an unaccusative verb takes. In two dimensional system an unaccusative would have no external argument because the Theme would not count as maximally prominent even when there is no more prominent argument to compete for this assignment as in (40g) above. She suggests that this status arises from the organization of the aspectual dimension. The unaccusative predicates express certain states or changes of state, and are associated with the second subpart of the event structure, whereas the event structure of an unergative verb which takes Agent as its argument is associated with the first subpart of the event structure: activity.

Finally I have to mention that Grimshaw (1990: 43) claims that an important property of the prominence theory of a-structure is that it makes no use of theta role labels in the a-structure representation. Argument structure represents the argument-licencing capacity of a predicate without specifying any semantic information about its argu-

ment, except for their relative prominence. Especially defining relations of prominence along the thematic and aspectual dimensions makes it possible to define external argument. Grimshaw explains the three special characteristics of Agents: that they are always subjects, that they always count as external arguments, and that they are never quirky case-marked.

I argue that the structure BV + AA is correctly analyzed under the theory of Grimshaw' a-structure. As I mentioned, I must modify her theory to make it fit to the analysis of the structure of BV + AA. I will discuss a-structure and the structure BV + AA in 4.2.2.

#### 4.2.2. How Should I Modify Grimshaw's Argument Structure?

To examine the structure BV + AA under the theory of a-structure, I must first give evidence that structure BV + AA is a single unit and behaves like a single verb, not a compound verb though on the surface the structure in question seems to consist of two verbal elements. Because Grimshaw's theory of a-structure is a structured representation which represents prominence relations among arguments which "verbs" take. The prominence relations are jointly determined by the thematic properties of the predicate and by the aspectual properties of the predicate. By defining relations of prominence along the thematic and aspectual dimensions, it becomes possible to define external argument, and also determine which verbs have one argument and which do not. The same prominence relations hold for the structure BV + AA.

I have already discussed why structure BV + AA (which I am going to examine in this paper)<sup>3)</sup> should be treated as a single unit in 1., though the structure in question consists of two verbal elements connected by conjunctive particle *te* in-between, such as V1 + *te* + V2. The second V or V2 in this particular structure (i.e. BV + AA) departs from the usual lexical meaning if such a verb is used as a full verb, and expresses a very limited range of aspectual meanings such as perfective, progressive, iterative etc. and does not take its own arguments. Thus the second V, or V2 should be regarded as an "auxiliary element." Besides, I argue that by examining structure BV + AA as a single verb, I can explicate not only the properties of AAs themselves but also which argument(s) V1 or BV of the structure BV + AA takes, if I examine the interaction among three AAs which are connected with BVs.

As I have discussed in 1.4.1., I assume all the argument(s) BV takes is/are transferred to the structure BV + AA when a BV is combined with an AA and behaves like a single verb. In other words, I assume Complete Transfer when BV is combined with AA. What I want to point out here is that the number and the kind of argument(s) each BV takes is the same as the structure BV + AA takes when the BV in question is combined with an AA in question. However, the behavior of the structure BV + AA and that of single BV are not identical. For example, if a BV is transitive and takes AGENT and THEME as its arguments, such as *akeru* "to open," the sentence containing the BV

can be passivized, whereas the sentence contains the structure BV *akeru* +AA *teoku*, namely *ake-teoku*, cannot.

I use capital letters for the arguments to distinguish those arguments which Grimshaw uses from the arguments I deal with in this paper. The latter ones include all the arguments which both BV and the combined structure BV + AA take. I will distinguish and examine five different verb (or BV) classes which will be combined with AAs. Five verb classes are given below repeated here as in (40).

- (40) (= 10) (a) Ditransitive (AGENT, GOAL, THEME)  
 (b) Transitive (AGENT, THEME)  
 (c) Unergative (AGENT)  
 (d) Unaccusative (THEME)  
 (e) Psych-verb (EXPERIENCER, THEME)

Now let us re-examine 3 BVs which are combined with AA *te-oku*, namely, BVs are *akeru* “to open,” *aruku* “to walk” and *saku* “to bloom.”

- (41) (a) John-ga mado-o ake-te-ok-u  
 John-Nom window-Acc open-AA-pres  
 “John will open the window.”  
 (b) (?) John-ga kono miti-o arui-te-ok-u  
 John-Nom this road-Acc walk-AA-pres  
 “John will walk along this road.”  
 (c) \* Hana-ga sai-te-ok-u  
 flower-Nom bloom-AA-pres

I assume that AA *teoku* is always combined with a BV which takes AGENT and (THEME). Let us assume that both *akeru* in (41a) and *aruku* in (41b) take AGENT and THEME as their arguments. Thus (41a) and (41b) are grammatical. On the other hand sentence (41c) is ungrammatical. Thus we assume that the argument BV in (41c) is not AGENT but other argument. Then let us combine the same three BVs with; AA *teiru*.

- (42) (a) John-ga mado-o ake-te-ir-u  
 John-Nom window-Acc open-AA-pres  
 “John is opening the window./John has opened the window.”  
 (b) John-ga kono miti-o arui-te-ir-u  
 John-Nom this road-Acc walk-AA-pres  
 “John is walking along this road.”

- (c) Hana-ga sai-te-iru  
 flower-Nom bloom-AA-pres  
 “Flowers bloom.”

Now all three sentences are grammatical, but have different meanings. Sentences (42a) and (42b) have either progressive or perfective meaning whereas sentence (42c) means only “state.” Sentences in (42a) and (42b) express John’s activity of “opening the window” and “walking along this street” respectively, while (42c) never expresses “flowers’ activity,” but expresses “state.” AA *teiru* is closely related Aspectual Dimension of Grimshaw’s a-structure. If we analyze the argument *John* in (42a) and (42b) based on Aspectual Dimension, *John* must be Agent. Sentences in (41) will support the idea that argument *John* is AGENT. Sentences in (42a) and (42b) seem to be ambiguous in meanings, but there is a solution to this. Grimshaw (1990: 26) pointed out that event structure represents aspectual analysis of the clause and determines such things as which adjuncts are admissible. In fact, sentences (42a) and (42b) are grammatical, but ambiguous in meanings. However, if I insert adverbials such as *ima* “now” or *moo* “already” in (42a) and (42b), each sentence has only one meaning. In other words if sentences (42a) and (42b) cooccur with an adverbial *ima*, they have only progressive meaning, while if they cooccur with *moo*, they have only perfective meaning. I call such adverbials participating in determining the meaning of a sentence “Obligatory Adjuncts” (OA). On the other hand, (42c) does not change the meaning “state” even the sentence has such adverbials as *ima* or *moo*. From the evidence given in sentences (41) and (42), I can predict one argument BV *akeru* and BV *aruku* take, namely, AGENT. On the other hand, BV *saku* takes only one argument. BV which takes only one argument is either Unergative or Unaccusative from BVs given in (40). BV *saku* cannot be combined with AA *teoku*, does not have progressive nor perfective meaning when it is combined with AA *teiru* as in (41c) and (42c). Thus we can predict the argument BV *saku* takes is THEME, not AGENT.

Now let us examine *o*-marked NP, *mado-o* and *kono miti-o*. The best way to examine whether two *o*-marked NP is THEME or not is to see whether BV in question can be combined with AA *tearu* and the sentence containing the structure BV + AA *tearu* becomes grammatical. Examples are given below.

- (43) (a) ?John-ga mado-o ake-te-ar-u  
 John-Nom window-Acc open-AA-pres  
 (b) mado-ga ake-te-ar-u  
 window-Nom open-AA-pres  
 “The window has already been opened.”

- (c) \*John-ga kono miti-o arui-te-ar-u  
 John-Nom this road-Acc walk-AA-pres  
 (d) \*kono miti-ga arui-te-ar-u  
 this road-Acc walk-AA-pres  
 (e) \* Hana-ga sai-te-ar-u  
 flower-Nom bloom-AA-pres

Sentence (43b) is only grammatical, (43a) is not acceptable in my dialect. Other sentences in (43) are ungrammatical. From the data given above, what can we predict? First, let us compare (43a) with (43b). A sentence becomes grammatical if AGENT is suppressed and *o*-marked NP is raised to the subject position as in (43b). On the other hand, the relation between (43c) and (43d) is not the same as the one we have seen in (43a) and (43b). I can assume that (43c) is ungrammatical if I compare (43a) with it. But what is wrong with (43d)? Let us compare sentences (41a) and (41b) with the ungrammatical ones given in (43) repeated here as in (44) below.

- (44) (a) John-ga mado-o ake-te-ok-u  
 John-Nom window-Acc open-AA-pres  
 “John will open the window.”  
 (b) (?)John-ga kono miti-o arui-te-ok-u  
 John-Nom this road-Acc walk-AA-pres  
 “John will walk along this road.”  
 (c) \* Hana-ga sai-te-ok-u  
 flower-Nom bloom-AA-pres

Sentence (44a) is acceptable, but (44b) is less acceptable. From two sentences in (44a) and (44b), I assume that arguments BV *akeru* takes and arguments BV *aruku* takes are not the same, in other words, those two BVs belong to different verb classes. Moreover there is strong evidence that AA *teoku* cannot be combined with Unaccusative like *saku* as in (44c). Then let us compare sentences which exclude *o*-marked NPs from (44a) and (44b).

- (45) (a) \* John-ga ake-te-ok-u  
 John-Nom open-AA-pres  
 (b) ??John-ga arui-te-ok-u  
 John-Nom walk-AA-pres  
 “John will walk along this road.”

Sentence (45a) becomes ungrammatical. This means *o*-marked NP in (45a) is a necessary element, namely, an argument. On the other hand, (43b) becomes less

acceptable, but not ungrammatical. This means *o*-marked NP in (45b) is not a necessary element, but it helps Sentence (45b) become more acceptable. Thus I assume this element is an adjunct. In fact, this element is necessary for sentence (45b) to become more acceptable. If my assumption is correct, I can explain why (43d) is ungrammatical. In (43d), after AGENT is suppressed, there is no argument in (43d), and (43d) becomes ungrammatical. (43e) seems to be a counterexample, but if we examine it closely, we see that BV *saku* does not have any AGENT to be suppressed. Thus (43e) is not a result of AGENT suppression and is considered ungrammatical. Grimshaw's a-structure will give us solutions as to which BV can be combined with which AA, which argument the BV in question takes, and whether NP in question is an argument or an adjunct etc.

Here I assume that special type of adjunct is necessary for analyzing the structure BV + AA correctly. I call this Obligatory Adjuncts which are not arguments, but necessary element for the structure BV + AA *teoku* or the structure BV + AA *teiru*. They are adverbials or NPs which serves adverbials. I assume that AGENT Suppressing Rule is necessary for combining a BV with AA *tearu*.

## 5. Conclusion

I have demonstrated that for proper analysis of the V + *te* + V construction it is essential to regard the first V as BV and the second V as an AA if the second verbal element (AA) expresses a very limited range of aspectual meaning such as inchoative, perfective, progressive inchoative etc. There is a clear distinction between a compound verb such as *hasit-te-yasumu* (run-and-rest) which seems apparently to have the same construction as BV + AA such as *hasit-te-iru* ("to be running"). If the V2 in question is used as a full verb in a compound verb like V + *te* + V, it takes its own argument(s) and *te* is not a bound morpheme, but a conjunctive particle meaning "and," whereas V2 in V + *te* + V (= BV + AA) behaves as a verbal element that adds an aspectual meaning to the preceding BV (= V1) which expresses the "core lexical meaning" of the V+ *te* +V construction and *te* between BV and AA is used as a bound morpheme, that is, semantically an empty morpheme. The combination BV + AA behaves like a single unit and AA does not take own argument(s). There is good evidence to support my claim by introducing Grimshaw's a-structure, and Grimshaw's and Mester's Argument Transfer. This problem will be examined closely in the next paper.

## Notes

1. According to Grimshaw (1990), argument structure was equated with the number of arguments related by predicate. With the increasingly important role played by principles such as the Theta Criterion and the Projection Principle in Government-Binding Theory (beginning with Chomsky (1981), and with the development of lexicalist theories like Lexical Functional

- Grammar (Bresnan (1982c)), a new view has emerged in which argument structure represents complex information critical to the syntactic behavior of a lexical item. For the theory of argument structure is used to explain properties of adjectival and verbal passives, causatives, light verb construction etc. (Levin and Rappaport (1986, 1988), Zubizarreta (1985), Grimshaw and Mester (1988) etc.)
2. On the other hand, as Grimshaw (1990: 2) explains, Williams (1981a), Marantz (1984), Belletti and Rizzi (1988) view argument structure as consisting of a set of arguments represented either by theta role labels or by variables over arguments (Levin and Rappaport (1986), Rappaport and Levin (1986), Zubizarreta (1987)).
  3. There are other types of BV + AA which should be treated as compound verbs.
  4. "Obligatory Adjunct": Arguments are essential elements each verb takes, while, generally speaking, adjuncts are not essential elements for each verb. When I refer to "Obligatory Adjuncts", they are not arguments each verb takes, but they are "essential elements for each verb."
  5. AGENT Suppressing Rule: This is a rule to be applied when a BV which takes AGENT and THEME is combined with AAte-ar-u, in other words, when AAte-ar-u is combined with BV which takes both AGENT and THEME, the AGENT is suppressed.

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