ASPECT

AND

ARGUMENT STRUCTURE

IN JAPANESE

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TABLE OF CONTENTS

ABSTRACT

Aspect, described by Comrie (1976: 3) as the 'temporal structure of events', and argument structure are two important facets of verbal semantics. Individual verbs, in linguistic expressions, always occur with a certain tense-aspect (TA) construction such as the Present and the Present Progressive and with a certain argument linking construction such as the Transitive construction and the Resultative construction. Verbal lexical semantics combined with these constructions determine the grammaticality and acceptability of, and the interpretative sense of, a predicate phrase as a whole. Therefore, aspect and the argument structure of verbs are fundamental information every speaker has to know in using a certain language.

Croft (2000) represents aspect as a two dimensional model, which has a time scale and a qualitative scale. Argument structure is derived directly from the causal structure where the force-dynamic relationship between participants in event determines the order of participants according to Croft (1990, 1991, 1993, 1994ab, 1995ab, 1998a, 1999a). These are ranked in the causal order and mapped into syntactic arguments via the linking rules.

These two dimensions of verbal semantics, which are independent but related, are represented in the causal-aspectual model (Croft 2000), which combines the two dimensional representation of aspect and of the force dynamic causal structure of events.

The main purpose of this thesis is to apply the causal-aspectual representation of verbal semantics proposed by Croft (2000) to Japanese predicates. First of all, the aspectual dimension of Japanese predicates is focused on. I analyze forty-eight situation types of Japanese predicates in terms of their behaviour in relation to three constructions: the Present, the *Te-iru*, and the Past constructions. Through an examination of the situation types that occur in these constructions, the Present is revealed to have four senses, the *Te-iru* to have eight senses, and the Past to have eight senses.

Secondly, I focus on both the causal and aspectual structures and analyse verbs of putting and removing in terms of the causal-aspectual model for two reasons. Firstly, these two classes of verbs are important because they refer to situation of motion and location which are within the essential experience of human beings. Secondly, since causal structures with these two classes of verbs have three arguments (agent, figure, and ground), they are more complicated than the structures involved in verbs that denote non-causal relations or that involve only two participants. The verbs are subcategorised mainly according to the linking constructions. Various occurrences of verbs with the constructions are examined and their semantic structures are represented in the causal-aspectual model. A semantic structure for each construction is also proposed.

Finally, systematic differences between English and Japanese verbs of putting and removing are observed and syntactic asymmetries between the two verb classes are explained in terms of the differences between the semantic natures of the events that they denote.

DECLARATION

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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ABBREVIATIONS

ABL   Ablative
ACC   Accusative
AGT   agent
ALL   Allative
A.OBL   antecedent oblique marker
CAS   cause
CHI   Chinese VN *suru* verb
CLSS   classifier
COM   Comitative
DA   *da* in Japanese (copula)
dev1   deverbalized V1 compound
dev2   deverbalized V2 compound
ENG   English VN *suru* verb
GEN   Genitive
frozen   idiomatic (frozen) compound
INST   Instrument
JAP   Japanese VN *suru* verb
LINK   *te*-linkage
LOC   Locative
means   means compound
NOM   Nominative
OBJ   Object
OBL   Oblique
OJCT   *ni* which serves like an accusative marker in English
ONMP1   non-reduplicated mimetic/onomatopoeic phrase
ONMP2   reduplicated mimetic/onomatopoeic phrase
PA   passive agent
pair   pair compound
PASS   Passive
PAST   Past
PURP   purposive
QSS   quotation and sound symbolism
REC   Recipient
RST   result marker
SBJ   Subject
SCP   scope marker
simple   simple verb
S.OBL   subsequent oblique marker
SRC   Source (non-spatial)
TE-IRU   *te-iru* in Japanese
TLOC   temporal locative marker
TOP   Topic

References:

GJD   the Great Japanese Dictionary
JSD   Dictionary of Synonyms in Japanese
Kouji-en   *Kouji-en* [Japanese Extensive Dictionary]
Sakabikijiten Nihongo Sakabiki Jiten [Reverse Dictionary of Japanese]

1. INTRODUCTION

1.1. Verbal semantic structure

Aspect, described by (Comrie 1976: 3) as 'temporal structure of events', and argument structure are well discussed topics in the semantics of verbs. In linguistic expressions, individual verbs always occur with a certain tense-aspect (TA) construction (such as the Present, the Past, and the Progressive) and with a certain argument linking construction (such as the Transitive construction and the Resultative construction). Verbal lexical semantics combined with the meaning of constructions determine the grammaticality and acceptability of a predicate phrase and bear a certain interpretative sense. The lexical aspect of a verb is correlated with its distributional patterns, with the TA constructions determining what kind of the tense-aspect constructions it occurs with and what sense it gets, and argument structure of the verb is correlated with its argument linking patterns determining what kind of argument linking construction it occurs in. That is, the two are important facets of verbal lexical semantics every speaker has to know in using a certain language.

1.2. Argument linking

Linguists have made numerous attempts to analyse argument linking over the past thirty years since Fillmore's (1968) case grammar appeared. Argument linking is an important component of linguistic theory which is expected to illuminate the interface between syntax and semantics. Verbs require arguments, that is,

participants of the situations[1] they denote. These arguments are realised syntactically by way of grammatical relations such as subject, object, or oblique. Are there rules as to how semantics interacts with syntactic realisation? In what way do semantic properties of the arguments determine the grammatical relation in which they are expressed? These issues have been discussed in order to establish argument linking theories that properly specify which arguments are associated with which grammatical relations. Nevertheless, the patterns of argument linking have not been fully explained.

There has been a near-consensus that a verb lexically carries information about which arguments are realised in which grammatical relations. This information is the argument structure of verbs. It is referred to argument-taking properties or grammatically-relevant elements of meaning by Rappaport Hovav et al. (1988, 1999).

In the past, it was also argued that a verb's lexical semantic representation should contain a list of thematic/semantic roles which specifies the number of arguments the verb requires and identifies the role each of the verb's arguments plays in the event in question. What is called the thematic role hierarchy, varying according to linguists, then, is seen as functioning as a linking construct which determines the syntactic realisation of these roles.

However, recent studies on argument linking (Croft (1991, 1998a), Rappaport Hovav et al. (1988), Levin et al. (to appear: 11-17), Dowty (1991) to name a few) criticise and admit some theoretical and empirical setbacks to the concept that the verbal lexical representation contains an inventory of thematic roles. One of the empirical problems of the thematic role lists is that one-to-one relationship between

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[1] The term "situation" refers to an incident or chain of incidents which are encoded by a single verb plus its arguments. It includes states and processes following Croft (2000) based on Comrie (1976).

semantic roles and syntactic arguments is not always maintained; one semantic role can be associated with multiple syntactic arguments and vice versa. My specific concern in this thesis is the former phenomenon.

This phenomenon is exemplified by the facts that many verbs realise their arguments in various ways (verbs' alternations) (Levin 1993) or that the order of syntactic arguments is interchangeable in some verbs that encode symmetrical relationship (Langaker (1991a, b), Levin et al. (to appear), Croft (1991)). Verbs' alternations are illustrated using the locative alternation (which subsumes the *spray*/*load* alternation) as in (1)[2] and the dative alternation as in (2):

(1a)   She loaded the hay onto the truck.
(1b)   She loaded the truck with the hay.   (Croft 1998: 34)

(2a)   He threw the ball to Fiona.
(2b)   He threw Fiona the ball.

In terms of thematic roles, which are notional, the three participants in the above sentences should be identical in (a) and (b). Leaving aside the consistent realisation of the agents (*She* and *He*), the other two participants are realised differently. The theme (*hay*) is assigned to the direct object position and the location[3] (*truck*) is realised as oblique in (1a), while the latter is realised as the direct object and the former is assigned an oblique role in (1b). (2a) expresses the theme (*ball*) in the direct object position and the goal/recipient (*Fiona*) as oblique while (2b) expresses both of them as direct object. Thus, the semantically identical sets of participants appear in two distinct alternations, that is, two distinct syntactic realisations. The mere list of semantic roles does not explain why they can have these two distinct alternations.

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[2] Examples, figures, and lists are all numbered from one in each chapter. An example (1) refers to (1) in the present chapter. Example (1. 10) means example (10) in Chapter 1 and this approach is followed in the other chapters. Figures and lists also follow this rule.

[3] The terms, theme and location, are originally from Anderson (1971).

In most recent approaches to argument linking, linguists still use thematic roles for convenience' sake to refer to certain participants of situations but do not regard a list of thematic roles as a proper representation of verbal argument-taking properties. Instead, a verbal semantic representation is supposed to have an event structure[4] over which thematic roles are defined and which contains the grammatically relevant information relating to each verb. It is assumed that once the event structure is properly articulated it can serve as an important part of verbs' lexical representation as verbs denote the situations. Therefore, argument-linking theories are concerned with how to represent situations properly, first of all. Argument linking theories also need mapping rules which specify how these semantic roles which are defined in event structure are expressed in syntax. Some linguists use a thematic role hierarchy while others use other constructs. Different linking theories have different semantic models of event structure, notation, and mapping rules, and also account for the alternations above, for example, in different ways. Sometimes an attempt is made to analyse and explain multiple syntactic realisation of semantic participants of a single verb.

Croft (1990, 1991, 1993, 1994ab, 1995ab, 1998a, 1999a) has already attempted to represent the event structure of verbs based on force-dynamic relationships instead of thematic role hierarchies (causal analysis). His earlier representational model reflects the behaviour of verbs concerning argument linking. Croft's newly proposed semantic representation of event structure, however, illustrates even more subtle semantic differences between several alternations in which a verb occurs. The new model combines his past causal analysis with aspectual analysis. Some linguists (Dowty 1991; Tenny 1992; Jackendoff 1996b, Rappaport Hovav et al. (1999), for example)

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[4] The term 'event' is used to refer to bounded processes in this dissertation. (This will be discussed in Chapter 3). However, I ask readers to understand that 'event' in 'event structure' is equivalent to 'situation'.

have focused their attention on aspect and treated it as another important factor that is related to argument linking. Croft incorporates the aspectual scene of verbal semantics, as an independent but related dimension, into his earlier representation of event structure by adopting the idea of "incremental theme" proposed by Dowty (1991) and formalising the notion in his geometric representation. Croft (1999a, 2000), with his new model, analyses English verbs extensively including problematic and often-discussed verbs with alternations such as the locative alternation and the dative alternation (examples (1) and (2)) as well as prototypical transitive verbs and verbs of motion and location.

1.3. Aims of the thesis

The main purpose of the thesis is to explore the verbal semantic structure of aspect and the argument structure in terms of a semantic representation using Croft's (1999a, 2000) causal-aspectual representational analysis. I shall look at two different though related dimension of verb meaning by introducing his model and demonstrating its applicability to the Japanese language.

His approach, which is the one pursued in the dissertation, is cognitively-based. I introduce two of the important theoretical assumptions of cognitive approaches here.

First of all, the construal of the speaker plays a major role in semantic representation. That is, meanings involve speakers' construals/conceptualisation of situations. It is a subjective operation which each speaker exercises in encoding any situation in linguistic expression. To explain it more detail, I shall first introduce Langacker (1976)'s three levels[5] of relationship between cognition and language. He assumes that there is 'uncoerced' or 'raw' conceptual structure at the lowest level.

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[5] At the upper level, there is a linguistic expression. However, I only mention the two structures below

This is a structure which is captured in a speaker's cognition and can be very complicated due to the complexity of our experience in the world. As Langacker (1976: 320) explains, conceptual structure is universal; "cognition or conceptual structure is essentially the same for speaker of all languages." In the middle level, there is coerced/construed semantic structure, whose purpose is for linguistic expressions. This is the level which is represented by 'linguistic' semantic representation or event structure which the linguists have attempted to represent. To put a conceived situation ('raw' event) into a linguistic expression, one must select "pertinent aspects of his current conceptual structures and cast them in a form appropriate for linguistic operation" (Langacker 1976:322) or even "alter" conceptual structures (Croft 1998a: 24)[6]. A language consists of a finite set of constructs and because of this limitation, the speaker has to submit his conceptualisations to the exigencies of the linguistic system, which is language specific. The construals/conceptualisation is this operational process of coercion[7]. When we talk of semantic representation of event structure, it refers to this semantic/coerced semantic structure, at least, in cognitive approaches. In the cognitive accounts of semantic structure, thus, there is a distinction between 'raw' conceptual structure and 'coerced' semantic structure, which is made by the process of construals/conceptualisation; the speakers' construal/conceptualisation of any 'raw' event is done before the semantic structure, whose representation cognitive linguistics regard as related to aspectual behaviours and the argument linking of a verb.

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this.

[6] Specifically, altering is occasionally done for the argument linking of non-canonical events. See Croft (1991, 1993, 1998a).

[7] The construal operation is open to the conventions of each language. Depending on what is available in the language in question, speakers are accustomed to view an event in a certain way or are allowed to have an alternative image. Langacker (1987) calls this "conventional imagery."

The second important theoretical background is that constructions as well as verbs have meanings, therefore, the constructions as a "conventional symbolic unit" (Langacker 1987) have semantic import and should have semantic representation. Constructions include various linking patterns such as the Transitive construction [SBJ VERB OBJ] and the Ditransitive construction [SBJ VERB OBJ1 OBJ2], or tense-aspect (TA) constructions such as the Progressive or the Present tense. Verbs are always used in these constructions, so, we need to see empirically what sense each verb gets with a particular construction and how this is represented in the semantic model. Through analysing verbs' occurrences with the construction, we could also propose a rather abstract meaning of the construction which integrates all the semantic senses it shows with verbs and this could be possibly represented as a schematic causal-aspectual model.

In applying Croft's causal-aspectual representation of verbal semantics to the Japanese language, I shall focus on verbs of putting and verbs of removing, which are conventionally three-argument verbs that require an agent, figure and ground. Situations with three participants are more complicated than verbs with one or two participants in terms of force-dynamic relationships. Three-argument verbs in English, as we already know, posit some difficult issues on various alternations in argument linking. Moreover, the spatial situation such as location and motion is an essential experience to human beings. Therefore, verbs of putting and removing, which are thought of as caused-motion situations, are be of particular interest in verbal semantic representation. It is also challenging to examine some three-argument verbs in Japanese to see how Croft's new model of verbal semantic representation can be applied to Japanese and to investigate the interrelations between the verbal semantics and argument structure of Japanese verbs.

The thesis contains seven chapters. Chapter 2 briefly reviews Fukui et al.'s (1985) argument linking study relating to Japanese verbs of putting and removing and also Croft's causal analysis (the old version of his argument linking theory). Chapter 3 focuses on aspect and its representation. I introduce Croft's two-dimensional representation of aspect and universal aspectual types. Then, I examine the distributional behaviour of Japanese predicates for three constructions: the Present, the *Te-iru*[8], and the Past construction. Looking at various situation types in Japanese in terms of what sense each type bears in the three TA constructions, I show the distinct senses of each construction, namely its aspectual types. Situation types are subcategorised into aspectual classes based on their distributional aspectual behaviour. Chapter 4 describes Croft's new semantic representation of event structure, which combines the causal analysis (discussed in Chapter 2) with the aspectual analysis (discussed in Chapter 3). The chapter also demonstrates how his causal-aspectual model works in English giving some notable examples. It further describes the methodology I have used to collect, read, and analyse the data of verbs of putting and removing as well as giving basic Japanese grammatical information necessary to look at the data. Chapter 5 and Chapter 6 classify verbs of putting and removing, respectively, in terms of argument linking constructions presenting semantic representations of each type, and also give schematic semantic representations for each construction. Chapter 7 concludes the discussion of the thesis and proposes some points of the causal-aspectual analysis that can be pursued in future study.

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[8] *Te-iru* is the aspectual construction as opposed to the unmarked form. Sometimes it behaves like the English progressive, and at other times describes the resultative state of something. Detailed explanations are given in Chapter 3.

2. THEORIES OF ARGUMENT LINKING

2.1. Introduction

The chapter gives a brief summary of some theories of argument linking. In the later sections, I discuss the literature on verbs of putting and removing in Japanese and introduce Croft's causal analysis for argument structure, which this study is based on.

Argument linking of English has been discussed extensively in the literature by Jackendoff (1990, 1996b, 1997), Croft (1990, 1991, 1993, 1994ab, 1995ab, 1998a, 1999a, 2000), Dowty (1991), Fillmore and Kay (1993), Goldberg (1995), Langacker (1991ab), Levin et al. (1991, 1995), and Rappaport Hovav et al. (1988, 1993, 1998, 1999). These are recent argument linking theories which do without an inventory of semantic roles as the event structure model. An ideal articulated argument linking theory has to cover and explain many facets of the syntactic realisation of languages. The multiple syntactic realisation of a single thematic role is one of them. This includes various alternations such as the locative alternation, the dative alternation and the causative alternation, for example. Each of these has its own verbal lexical representation model.

Though their representational models vary, there are basically two levels of representations in verbal meanings. One is a purely semantic and idiosyncratic representation and the other is a representation which relates to the argument taking properties of verbs. The lexical conceptual structure (LCS) and the predicate-argument structure (PAS) in Rappaport Hovav et al. (1988, 1993) apparently correspond respectively to the two levels. Even in other theories, where only one representation is available, still two different components in the representation can be identified. In Jackendoff (1990), the pure semantic representation is illustrated by the

decompositional style of event structure while the argument structure is encoded by stipulated A-marking. In Rappaport Hovav et al. (1995, 1998, 1999), a constant serves as an idiosyncratic part of verbal meanings and an event structure template serves as the structural part, which is regulated by argument-linking. Goldberg (1995), however, includes in a verbal meaning only an idiosyncratic part and attributes properties of argument structure to a constructional meaning. Langacker (1991a, b) and Croft (1991, 1993, 1994ab, 1998a)[1] represent purely the semantic part of verbal meaning in event structure based on force-dynamic relations and derive argument structure directly from the event structure. However, it is possible to say that the profile or the verb profile, which is closely associated with the syntactic realisation of verbs' arguments, serves as another component in verb meaning.

None of the above theories can do without stipulations when linking the representation of argument-taking properties or the structural part of verbal meaning to the syntactic representation. These stipulations include Jackendoff's A-marking and correspondence rules such as adjunct fusion, Rappaport Hovav et al.'s (1988) linking rules, Goldberg's profiling and argument structure in each construction, and Langacker's and Croft's profile. However, the last two are preferable since the different stipulations are semantically motivated. In fact, Croft's notion of a verbal profile will be discussed shortly.

In the theories of argument linking, there are basically two main approaches to analysing verbs that allow more than one alternation: the lexical rule approach and the non-lexical approach. (See Croft 1999a, 2000 for detail.) The former posits separate verbal representations for distinct alternations that verbs manifest while the latter accounts for the multiple representations by distinct extra-lexical correspondence rules.

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[1] I shall describe Croft's theory in more detail later in the chapter.

The former can also be said to be a polysemous approach in that multiple representations of verbs are related to each other. This approach is taken by Rappaport Hovav and Levin, Croft, and Langacker. The last two presuppose that the profile is also a part of verbal meanings and also their polysemous approach is not as systematic as that of Rappaport Hovav and Levin in that they do not claim monotonicity[2]. The extra-lexical approach is taken by Jackendoff and Goldberg. Jackendoff reduces the information in verbal lexical representation and makes different correspondence rules (including various adjunct rules) to yield different syntactic realisations. Goldberg, who advocates the concept of constructional meanings, is a convinced defender of the constructional approach. Her account is still extra-lexical in that she attributes the existence of different alternants to a single verb's being fused with different constructions. Whichever approach is taken, the two approaches are not so distinct in terms of descriptive adequacy; there is just a difference in the components they are applied to.

Concerning the lexical and constructional approach, as Croft (1999a, 2000) points out, we cannot clearly attribute a whole semantic meaning of a verbal phrase either only to the verb's lexical entries or only to constructions, as verbs and constructions are not separable when they appear in syntax. Moreover, Rappaport Hovav et al. (1999) and Levin et al. (to appear) note that use of a constructional approach merely results in a theory being articulated from a different aspect that would have been in the case with a lexical approach.

Compared to English, argument linking in Japanese has been relatively little discussed. The rest of this chapter deals with the discussion about verbs of putting and

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[2] Monotonicity in verbs' meanings claims that verbs' meaning can only be built up in a one way fashion from the basic one to more complex one, not the basic one is reduced to other ones.

removing in Japanese in Fukui et al. (1985). Then, I introduce the Croft's old model of argument linking, leaving discussion of his new model to Chapter 4.

2.2. Literature on Japanese verbs of putting and removing

Argument linking in Japanese has been discussed in general terms. Such discussions have been concerned with what kinds of verbs take how many arguments and how they are realised in syntax, and sometimes there has been a comparative study of English and Japanese (Teramura 1982, Kageyama 1996, Tanaka et al. 1997, Yoshikawa 1995). However, there has been no detailed discussion concerning three-argument verbs, especially the locative alternation, although the subject is generally discussed in Kageyama 1980 and Fukui et al. 1985. The work of Fukui et al. (1985) is closer to what I am trying to do in this dissertation in that they have proposed the conceptual structures for verbs that allow the locative alternation, so I shall briefly discuss their arguments as a preliminary to the analysis of verbs of putting and removing[3].

Fukui et al. (1985) explain the locative alternation in the Lexical Conceptual Structure (LCS), over which semantic roles are defined. They propose that verbs (in English and Japanese) that appear in the locative alternation illustrated in examples ((1)-(4)) have the two shared semantic properties of (5), which will be restated in the LCS-like term later (Fukui et al. (1985: 22-24)).

nuru/smear **type** ('material-adding' verbs)

(1a)   smear paint on the wall
(1b)   smear the wall with paint

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[3] Kageyama's (1980) approach stipulates semantic roles (semantic role approach) according to Fukui et al. (1985). Therefore, I do not discuss it here. (See Chapter 1, where I have briefly discussed why a semantic role approach is not adequate.)

(2a)   kabe-ni penki-o   nuru
        wall-on paint-ACC smear
        'smear paint on the wall'

(2b)   kabe-o   penki-de   nuru
        wall-ACC paint-with smear

***katazukeru/clear* type** ('removing' verbs)

(3a)   clear the plates from the table
(3b)   clear the table of plates

(4a)   teeburu-kara sara-o   katazukeru
        table-from   plates-ACC clear

(4b)   teeburu-o   katazukeru[4]
        table-ACC clear

(5) semantic conditions for the alternation
    (i) it must have two arguments (other than the subject)
    (ii) it must include the semantic notion of 'Affect Y'

In order to support their account[5], they compare the *nuru/smear* type, which allows

the alternation, with other types that do not allow it. First of all, they argue for the

condition (5i), by comparing the *nuru/smear* type with the *maku/spray* type, which

does not allow the alternation in Japanese.

(6a)   mizu-o   hodoo-ni   maku
        water-ACC sidewalk-on spray
        spray water on the sidewalk

(6b)   *hodoo-o   mizu-de   maku
        sidewalk-ACC water-with spray
        spray the sidewalk with water

                                        (Fukui et al. (1985: 38))

They conclude that the *nuru/smear* type requires two arguments (other than the

subject) while the *maku/spray* type has only one. They present two types of syntactic

evidence: deletability of arguments and compounding.

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[4] Japanese does not have the equivalent linking to (3b).

[5] I only present the discussion of *nuru/smear* type because *katazukeru/clear* type is also argued to have

the same semantic condition of (5) above and is shown to have same syntactic behaviour to verify this

as the alternating type of putting have, which will be discussed below.

The first test, deletability of arguments, supposes that if a required argument of the verb is not represented, there is a clear intuition that something is missing. They test *haru* ('hang' a non-alternating verb in Japanese) and *hari-tsukusu* (a compound ('hang'-'exhaust' that means 'hang completely' which allows the *with*-variant) to support their idea.

haru ('hang'--one-argument)

(7a)   ano posutaa-o haru   (no sense of missing)
       that poster-ACC hang
       'hang that poster'

(7b)   kabe-ni haru   (sense of missing)
       wall-on hang
       'hang on the wall'

(Fukui et al. (1985: 26))

It is concluded that the only argument is Material (fulfilled by 'poster')[6].

hari-tsukusu ('hang-completely'--two-argument)

(8a)   kabe-o   hari-tsukusu   (sense of missing)
       wall-ACC hang-exhaust
       'completely hang the wall'

(8b)   posutaa-de hari-tsukusu   (sense of missing)
       poster-with hang-exhaust
       'completely hang with posters'

Thus, it is concluded that the two arguments are the wall (Entity/location) and the poster (Material).

The second test, compounding, is to see the grammaticality when verbs are compounded with their argument. The compounding is a process of combining an infinitive verb with an argument required by the verb in order to make a noun phrase such as (*kitte-atsume* 'stamp-collecting' (from 'collect stamps') and *shoku-sagashi*

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[6] I think (7a) is actually a case of Definite Null Instantiation (this will be discussed in Chapter 4). Speakers should know where the poster is hung. I would say it is difficult to say this without contexts. However, it is at least true that *wall* in the example is less necessary than *poster*.

'job hunting' (from 'hunt job'). The *nuru/smear* type (which is supposed to have two arguments) should allow compounds for each of the argument and the non-alternating type (which is supposed to have one argument) should allow only one compound for the argument. This is proved to be true.

nuru/smear type (alternating):
(9a)   penki-nuri (paint-smearing)
(9b)   kabe-nuri (wall-smearing)

maku/spray type (non-alternating):
(10a) mizu-maki (water-spraying)
(10b) *hodoo-maki (sidewalk-spraying)

<div align="right">(Fukui et al. (1985: 29))</div>

Thus, condition (5i) is shown to be complied with in the two syntactic tests above.

However, condition (5i) is not sufficient since it does not preclude the *oku/put* type verbs, which require two arguments other than the subject, from the alternation. They argue that the *nuru/smear* (alternating) type has the additional meaning of 'Affectedness.'

nuru/smear example:
(11a)   Taroo-ga   kabe-ni akapenki-o   nutta.
        Taroo-NOM wall-on red.paint-ACC smeared
        'Taro smeared red paint on the wall.'

(11b)   Taroo-ga   akapenki-de kabe-o   nutta.
        Taroo-NOM red.paint-with wall-ACC smeared
        'Taro smeared the wall with red paint.'

<div align="right">(Fukui et al. (1985: 41))</div>

They say that the two sentences above mean that Taro carried out the action of smearing using the Material 'red paint'; and, as the result of that action, the nature of the Entity/Location, *kabe* ('wall'), was 'affected' (i.e., it changed colour). However, they say the *maku/spray* type and the *oku/put* type do not imply any clear sense of "affectedness." For example, putting an entity in a certain location does not change

the nature of the location[7].

Following these arguments, they propose the LCS for the three type of verbs:

(12) a. LCS of <u>oku</u> 'put': OKU <u>x</u> at some place <u>y</u>.
(it has two arguments; x is simply an object of the action OKU)

b. LCS of <u>maku</u> 'spray': Realize the action MAKU by using the Material <u>x</u>.
(material is 'inherently necessary' for the realization of the action)

c. LCS of <u>nuru</u> 'smear': Realize the action NURU by using the Material <u>x</u> &
Affect <u>y</u>

(Fukui et al. (1985: 42))

(it has two arguments, material is 'inherently necessary[8]' for the realization of
action; and the meaning also implies some effect on <u>y</u>, which is an important
part of the meaning of *nuru*)

Then, the conditions (5i) and (5ii) can be restated as follows.

(13)   Conditions for the alternation

(i) The verb takes two arguments <u>x</u>, <u>y</u> in its LCS; and
(ii) One of its arguments (<u>y</u>) is affected by the action represented by the meaning of
the verb ('Affect <u>y</u>').

(Fukui et al. (1985: 43))

The *oku/put* type satisfies (i) but not (ii). The *maku/spray* type fails to satisfy (i), so

condition (ii) is irrelevant.

Fukui et al. (1985) also refer to the fact that English has many more alternating

verbs than Japanese. They say, however, that Japanese is rich in morphology and can

make the alternation possible with non-alternating verbs by attaching, for example,

tsukusu 'exhaust'.

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[7] This idea is different from Dowty 1991: the location is the incremental theme (the argument that
measures out the event) when it is the direct object. Actually, if we spray something onto a location
such that it is covered with it, we can say it is affected. The notion of affectedness should be clarified in
their argument.

[8] "Material is 'inherently necessary' for the realisation of action" means that the verbs have special
semantic restriction on Material, which the *oku/put* type lacks.

haru 'hang' vs. ***hari-tsukusu*** 'hang-exhaust'

haru

(14a)
kabe-ni posutaa-o haru
wall-on poster-ACC hang
'hang posters on the wall'

(14b)
*kabe-o posutaa-de haru
wall-ACC poster-with hang
'hang the wall with posters'

hari-tsukusu

(15a)
kabe-ni posutaa-o hari-tsukusu
wall-on poster-ACC hang-exhaust
'hang all the posters on the wall'

(15b)
kabe-o posutaa-de hari-tsukusu
wall-ACC poster-with hang-exhaust
'completely hang the wall with posters'

maku 'spray' vs. ***maku-tsukusu*** 'spray-exhaust' (Fukui et al. (1985: 44))

maku

(16a)
mizu-o hodoo-ni maku
water-ACC sidewalk-on spray
'spray water on the sidewalk'

(16b)
*hodoo-o mizu-de maku
sidewalk-ACC water-with spray
'spray the sidewalk with water'

maki-tsukusu

(17a)[9]
mizu-o hodoo-ni maki-tsukusu.
water-ACC sidewalk-on spray-exhaust
'spray all the water on the sidewalk.'

(17b)
hodoo-o mizu-de maki-tsukusu.
sidewalk-ACC water-with spray-exhaust
'spray the sidewalk completely with water.'

It is argued that *-tsukusu* 'exhaust' in the above examples adds the semantic component of 'Affect y' to the LCS of non-alternating verbs. As a result, the verbs combined with *tsukusu* can have the alternation. Returning to the difference between English and Japanese, the semantic element 'Affect y' occurs in the LCS of English verbs more often than in Japanese verbs, which often acquire that semantic element by

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[9] The example is mine as Fukui et al. do not mention clearly the locative version of *maki-tsukusu*.

morphology such as *-tsukusu*.

Thus, Fukui et al. (1985) explain the locative alternation in terms of conceptual structure. However, the crucial problem is that they propose the semantic properties of the verbs that manifest the alternation, but do not discuss the subtle semantic differences between the locative variant and the *with*-variant. In the discussion of *nuru/smear* ((11)), they say that Location is affected in both of the variants. According to their explanation, verbs that alternate have the meaning of affecting the Location and both of the two variants imply this "affected" meaning. This is against the standard view that the *with*-variant has a holistic interpretation, which the locative variant lacks (at least, in English).

I can show counterexamples even in Japanese. According to them, *hari-tsukusu* ('hang'-'exhaust') and *maki-tsukusu* ('spray'-'exhaust') should have an "affect y" interpretation. However, they do not imply that the location is "affected" in the locative variant since the notion of "affectedness" would have to be changed or respecified in order for them to do so. We can say the following in Japanese. The structure of the bold part is the same as (15a) above.

(18a)
Kabe	**ni**	**posutaa**	**o**	**hari-tsukushi-ta**	ga
wall	ALL	poster	ACC	hang-exhaust-PAST	but

mada	supeisu	ga	at-ta	node	soko	ni	tapesutorii	o	kake-ta.
still	space	NOM	is-PAST	so	there	ALL	tapestry	ACC	hang-PAST

I hung all the posters on the wall, but there was still space there.
So, I hung a tapestry there.

If the wall is not fully covered, or has not changed its nature, I do not think we can interpret that the wall changes its nature by being partly covered with posters. The same expression is not possible with the *with*-variant. The bold part has the same argument linking as (15b) above.

(18b) ***Kabe o posutaa de hari-tsukushi-ta ga**
     wall ACC poster INST hang-exhaust but

mada supeisu ga at-ta node soko ni tapesutorii o kake-ta.
still space NOM is-PAST so there ALL tapestry ACC hang-PAST

    I completely hung the wall with posters, but there was still space there.
    So, I hung a tapestry there.

The other example is *maki-tsukusu* 'spray-exhaust'. The bold parts are the same as

(17a) and (17b), respectively.

(19a) **Mizu o hodoo ni maki-tsukushi-ta ga**
     water ACC sidewalk ALL spray-exhaust-PAST but

    mada sukoshi kawaita tokoro ga aru.
    still little dry part NOM is

I sprayed all the water on the sidewalk,
    but there is still some dry part there.

(19b) ***Hodoo o mizu de maki-tsukushi-ta ga**
     sidewalk ACC water INST spray-exhaust-PAST but

    mada sukoshi kawaita tokoro ga aru.
    still little dry part NOM is

I sprayed the sidewalk completely with water,
    but there is still some dry part there.

The sidewalk partly wet with water cannot be interpreted as changing its nature in (19a). Actually, Fukui et al. even say that *maku* 'spray' does not imply any clear sense of 'affecteness.' According to them, in example (16a), "hodoo ('sidewalk') simply indicates the location at which the action of spraying took place by using the Material *mizu* ('water')." Is the sidewalk less affected by spraying **water** on it (encoded in the locative variant of *maku* 'spray') than by spraying **all the water** on it (encoded in the locative variant of *maki-tsukusu* ('spray-exhaust')? I do not think this is plausible. I would say it is better to attribute the affecteness of the location to the *with*-variant, not the alternation, following the standard view. Also I would not think –*tsukusu* 'exhaust' adds the "affected y" component to the LCS of the verbs. Rather, it assigns the

"affectedness" to the direct object. So, "affectedness" is assigned to the Material in the locative variant and to the Location in the *with*-variant.

The article focuses on the locative alternation in Japanese, which is rare in the literature, and also explains the alternation in the conceptual structure. What the present study, on the other hand, will reveal are the subtle semantic differences between the two variants of the locative alternation, which the article fails to do. Fukui et al. (1985) also have a list of some related Japanese simple verbs and compound verbs with their syntactic configurations, which is similar to the present study. However, the study in this thesis concentrates on the two verb classes only and has a much larger number of verbs. It will also look more closely at syntactic configurations other than the locative and *with*-variants. Now, I introduce the framework adopted in this thesis, which is Croft's causal analysis.

2.3. Croft's causal analysis (1991, 1993, 1994ab, 1998a)

I shall discuss Croft's older version of his argument linking theory here. Though his basic idea has been maintained, some notation of his semantic representation has changed since 1991 and I shall mostly cite his recent version (1998a).

His argument linking theory, which is based on cognitive linguistics, also uses some theoretical constructs such as event structure. What is distinctive in his analysis is that he adopts two semantic notions, which are (i) force-dynamic relations and (ii) the verbal profile (cf. Langacker 1991a, b). Croft (1991, 1993, 1994ab, 1998a) dispenses with thematic role hierarchy by employing force dynamic relations, and another layer of representation such as syntactic arguments or super-roles (cf. Dowty (1991)'s proto-roles) by employing the verbal profile, and makes linking rules much simpler.

2.3.1. Event structure

Croft's original semantic representation for event structure which is considered as the foundation for argument linking, goes beyond the other theories such as Jackendoff (1990), Rappaport Hovav et al. (1988), who regard event structure as a representation from which thematic roles are derived, by proposing a semantic representation from which linking properties of arguments are directly derived (cf. Langacker 1991); he does not use a separate argument structure such as Jackendoff's A-marking or Rappaport Hovav et al.'s PASs. Focusing on relational nature between participants, he argues for an event structure which can encode the ranking of participants. His event structure is based on the causal chain model, which is not dissimilar to Langacker's action chain. In the model, it is force-dynamic relationships that count; the direction of transmission of force determines the order of participants. If one participant acts on another force-dynamically, then the acting participant is thought to outrank the other (is antecedent to the other). For example, in the event of John's breaking the vase as in *John broke the vase*, John causes the vase to break, therefore, John is antecedent to the vase in the causal chain. In this example, the order of participants is straightforward.

(20) John broke the vase. (cf. Croft 1998a: 48 causative verb type)

$$x \cdots\cdots\cdots y =\!=\!=\!= (y) \text{———} (y)$$
* * * * * * * * * * * * * * * *break* * * * * * * * * * * * * *
Sbj   Obj
John   *vase*

The force-dynamic relation between the two participants is indicated by the first row. They are distinguished with labels such as x and y. The causal chain not only orders the participants in terms of the transmission of force but also individuates the event as consisting of subevents or segments at the proper level of granularity (cf. Croft 1991: 163-166). In the above sentence, for example, the process of the vase

undergoing the change has its own subevent (CHANGE segment), the state of the vase broken also has a distinct subevent (STATE segment) as well as the force-dynamic relation between John and the vase (CAUSE segment)[10]. Every segment has two participants on each end, which are called the initiator (for antecedent participant) and the endpoint (for subsequent participant) of the segment. In cases of non-force-dynamic subevents such as in the change segment and the state segment, the initiator and the endpoint refer to the same participant and do not need to be realised as distinct arguments in syntax. The repeated participant is represented by parenthesised constants such as "(y)" in the notation.

As Langacker (1991ab) argues, events do not always denote a prototypical force-dynamic relationship. Some events seem to exhibit no force-dynamic relationship between participants or the relationship is less clear than in prototypical cases. Non-force-dynamic events are those denoted by statives of symmetrical relations (such as *Marsha resembles Hilda* as discussed in Langacker (1991a: 222), stative mental verbs[11] and those of spatial relationship in which two participants are labeled as figure (theme) and ground (location). Croft also argues that the construal of the event on the part of the speaker explains these non-force-dynamic relations. The "raw" event structure (conceptual structure) of non-causal relations is possibly coerced to asymmetrical causal relations to encode the event in question in linguistic expressions which are available in each language through a construal operation. If a language allows, they may be realised equally in syntax as either double subjects or double objects. These ambiguities of the syntactic realisation of non-causal events are motivated by the ambiguous semantic properties of events; because events themselves

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[10] In his new notation (1998a), two parallel lines indicate process (CHANGE), a unbroken line indicates state (STATE), and a round dotted line indicates force-dynamic relationship (CAUSE).

[11] For details, see Croft (1991, 1993) and for mental verbs in Japanese see Taoka (1995)).

are indeterminate in terms of force-dynamic relations between participants, the argument linking of events which is based on their semantic structure turns out to be ambiguous. Thus, the force-dynamic relation representing the event structure, as Croft argues, is not invalid.

Concerning the order of figure and ground, however, Croft (1991, 1998a) claims that there is a universal Figure-first coercion pattern. That is, the figure (theme) is coerced as antecedent to the ground (location). He (1998a: 39) argues that this construal is semantically motivated by the fact that it is the figure that is directly acted upon by the initiator. For example, in *John put the blanket over the sofa*, *the blanket* (figure) and *the sofa* (ground) are in a non-causative spatial relationship, which is brought about by an actor. However, they are coerced into asymmetrical relations so that *the blanket* comes first being realised as direct object[12]. It is easily interpretable that John acts on the blanket (such as taking hold of it) and changes its location to over the sofa.

 (21)   *John put the blanket over the sofa*. (cf. Croft 1991: 200)

<pre>
x ·············· y ═══════ (y) ──────── z
* * * * * put * * * * * * * * * * * * * • • • over• • • •
Sbj   Obj   S.Obl
John   blanket   sofa
</pre>

Following Langacker (1987, 1991ab), Croft's semantic representation of verbs involves a distinction between profiled parts and unprofiled parts in event structure. A whole causal chain serves as the base or frame (cf. Fillmore) and verbs are assumed to denote some parts or all of it. The segment parts which are denoted lexically by the verb are called the verb profile and indicated by "* * *" in the representation (see (20)

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[12] For other various examples of Figure-first coercion, see Croft (1991: 198-206).

and (21) above[13]). These are the part/parts which are asserted by the verb semantically. Adpositions can additionally profile other segment/segments of the causal chain, which are indicated by • • • (Croft 1998a: 59-60). In (21), the cause segment and the change segment are profiled by the verb and the state segment is profiled by the preposition.

The lexical representation of verbs is posited as above and the next discussion is how the linking of arguments is reflected from the event structure representation. Croft presents four universal linking rules as follows[14] (Croft 1998a: 24):

(22)   Linking rules:

1. The verbal profile is delimited by Subject and Object (if any)
2. Subject $<$[15] Object
3. Antecedent Oblique < Object < Subsequent Oblique
4. Subject < Incorporated Noun < Object (if any)

The verb profile which Croft regards as a part of semantic representation is actually stipulated based on the first linking rule. However, the stipulation itself is not a problem as long as it has an explanatory power which can provide consistent and proper predictions concerning argument linking. We cannot help to a certain extent stipulating argument linking properties from the way they are actually realised in syntax; other linguists also use the stipulation (Jackendoff's A-marking, Rappaport Hovav et al.'s PASs, and Goldberg's argument structure in constructional meanings).

The second rule is not inconsistent with Langacker's (1991) claim that the head of the profiled action chain will be the subject and the tail of the profiled action chain will be the object when there is an asymmetrical interaction between two participants. That is, the subject always precedes the object in the force-dynamic chain. The

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[13] The second row specifies the part which is profiled or denoted by the verb.

[14] As the fourth rule is not related to the English language nor the Japanese, I shall not discuss it further.

[15] X<Y indicates that "X antecedes Y in the causal chain".

initiator of the action is unmarkedly encoded as the subject rather than the receiver of the action.

The third rule involves Croft's original idea about oblique. He distinguishes two types of oblique, the antecedent oblique and the subsequent oblique, in his causal order hypothesis (Croft 1991: 186), according to its positioning relative to the object in the causal chain; the antecedent oblique precedes the object, which in turn precedes the subsequent oblique. It is agreed among linguists that the grammatical relation hierarchy is SBJ < OBJ < OBL, which corresponds to the order of participants in the causal chain in Croft. However, only subsequent obliques comply with these hierarchical relations. Antecedent obliques which come before the object are relatively marked forms. A good example of antecedent obliques is *with*, the instrument case marker in English, as in *I broke the coconut with a hammer*. The order of the causal chain is "I > hammer > coconut". *With* (antecedent marker) case-marks the hammer which precedes the coconut, which is realised as direct object. Croft (1995b, 1998a: 40 etc) summarises that antecedent obliques in English are *with* (comitative, manner, instrument), *by* (passive agent, means), *of* (theme as in *Bears stripped trees of bark*) and nonspatial *from* (cause) and *out of* (cause) while the subsequent obliques are *to* (result, recipient), *for* (benefactive) and the spatial Path prepositions[16]. However, some prepositions do not mark participants in an event but only refer to a circumstantial setting (time, place) in which an event takes place; *He danced **at** five o'clock* or *She baked a cake **in** the kitchen*. Setting is like a stage where an event (which is

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[16] Croft defends the antecedent/subsequent oblique distinction giving cross-linguistic evidence (Croft 1991: 187-190) and developmental evidence (Croft 1998a: 40) for syncretisms among oblique markers of the same type. In short, a single oblique marker is likely to have several functions to mark thematic roles which belong to the same category (*by* is used for passive agent and means, which belong to antecedent thematic roles) or children wrongly use one oblique marker in the place of another which belongs to the same category.

represented as the causal chain) unfolds. Therefore these prepositional phrases are irrelevant to the causal analysis.

The grammatical relations are indicated in the third row of the representation. "Sbj" stands for Subject, "Obj" for Object, "S.Obl" for subsequent oblique, and "A.Obl" for antecedent oblique. The final fourth row represents the participants referred to.

2.3.2. The verbal profile

To illustrate the operation of the verbal profile, the *spray/load* alternation and the caused-motion construction will now be discussed.

2.3.2.1. *Spray/load* alternation

The verb profile as part of the semantic representation treats the locative alternation without positing another layer of representation for argument-predicate structure. Croft (1998a: 39) gives the following two geometric representations for the two variants of *spray*:

(23)   Jane sprayed paint on the wall. (the locative variant)

```
x ·············       y ══════════ (y) ──────────── z
* * * * * spray * * * * * * * * * * • • • on • • • • • •
Sbj              Obj                              S.Obl
Jane             paint                            wall
```

(24)   Jane sprayed the wall with paint. (the *with*-variant)

```
x ·············       y ══════════ (y) ──────────── z
* * * * * spray * * * * * * * * * * * * * * * * * * *
Sbj              A.Obl                            Obj
Jane             paint                            wall
```

According to the linking rules, *spray* of the locative variant is represented as having the cause segment and the change segment as its verb profile, while it covers all the

segments of the event as the verb profile in the *with*-variant. *Wall* is marked as a subsequent oblique in the former variant and *the paint* is marked as an antecedent oblique in the latter variant. Moreover, the assignment of direct object is different, which is the reason why their coverage in the verb profile is different. Croft argues that the different degree of affectedness of the end participant (*wall*) is attributed to the difference of profiling. As we can see from the semantic representations of the two sentences, that for (24) is profiled wholly by the verb including the final segment which denotes the achievement state while this is not the case in (23). The final subevent (achievement) in the causal chain is profiled complementarily by the prepositional phrase and not by the verb. That is, "a lesser degree of affectedness indicates a less complete achievement of the event, which is expressed by less of the event being profiled by the verb" (Croft 1998a: 44)[17].

Croft also defends the validity of the verbal profile by demonstrating that it is "not idiosyncratically stipulated." As above, he shows that differences in verbal profile on the same event base/frame, which cause different argument patterns, are motivated by semantic differences (Croft 1991, 1994ab, 1998a). As above, the stipulated verb profile can predict the semantic difference[18].

Thus, the two variants with the semantic difference are attributed to the two

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[17] Croft (1998a: 43) also points out that some of the *spray/load* verbs such as *spray*, *spatter*, and *scatter* occur in simple transitive constructions with the figure being assigned Accusative as in *The broken fire hydrant sprayed water all afternoon*. This case leaves a path (trajectory) unspecified. This also supports the idea that the final segment is profiled not by the verb, but by the prepositional phrase. The prepositional phrase (not the verb) profiles the final segment in the semantic representation. Another example to support the relation between a difference in profile and a different degree of affectedness is the conative alternation. For details, see Croft (1998a: 45).

[18] Croft's different stipulations for the verb profile correctly predict different semantic differences. Unlike Croft's verb profile, Jackendoff's (1990) A-marking theory has no correlation with semantic interpretation; different A-marking stipulation occur in different conceptual structures and there is no correlation between the two.

different verb profiles. On the other hand, the identical frame/base confirms that they

denote the "same" force-dynamic relation of event structure. His theory does not refer

to another layer of predicate-argument representation nor posit two absolutely distinct

meanings of the verb.

2.3.2.2. The caused-motion construction

Croft's theory explains the caused-motion construction by taking the view that the

prepositional phrase profiles the final state segment. Actually, the caused-motion

construction is not dissimilar to that with a verb of putting in that the actor causes the

figure to move to the ground (or from the ground). Let us take the following example:

(25)   Bill pushed the piano into the orchestra pit.

<div align="center">

x ·············   y ══════════ (y) ─────────── z

* * * * * *push* * * * * * * * * * * * • • • *into*• • • • • •

Sbj   Obj   S.Obl

Bill   *piano*   *pit*

</div>

The two segments of the verb profile of *push* are marked with "* * * * * *". The third

segment marked with "• • • • •" is the prepositional profile, which is occupied by *into*.

The representation makes clear which part is the meaning contributed by the verb[19].

2.3.3. Summary

Croft's semantic representation of verbs has two parts; the causal chain and the verb

profile. The causal chain is based on the force-dynamic relations between participants,

which is of a relational nature. This enables us to derive the argument linking

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[19] In this sense, the possible analysis of the caused-motion construction can be said to be similar to that
of Jackendoff (1990) or Goldberg (1995), who do not attribute the change-of- location meaning of the
whole phrase to the verbs' lexical representation of verbs.

properties of the verbs directly from the event structure representation, without reference to an additional layer of argument structure. The verb profile, which is independent from the force-dynamic relations and which is another construal operation, makes alternative argument linkings of verbs possible without positing totally distinct event structure representations. Croft's approach to argument alternation is polysemous in that he posits two different representations for verbs regarding the verb profile as a part of the semantic representation. However, unlike Rappaport Hovav et al. (1998, 1999), there is no distinction between basic and derived meaning, and also Croft's analysis is not so rigid as theirs in that he does not claim the monotonicity of verbal meanings.

Another remarkable product of his theory is the antecedent/subsequent oblique distinction. Subject and object linking is extensively discussed in argument linking theories but not so many theories deal seriously with obliques. By distinguishing the two types of oblique markers, the theory can predict the encoding of obliques in a much better and more systematic way. In particular, the locative alternation, which involves oblique markings, is nicely analysed in Croft's representation.

In the next chapter, I shall turn to the aspectual part of verbal semantic structure introducing Croft's (2000) aspectual representation of verbs. Then, using Croft's new model, the aspectual behaviour of predicates in Japanese will be examined.

3. ASPECT IN JAPANESE

This chapter focuses on the dimension of aspect of predicates. The contents of the chapter are as follows. Section 1 introduces the basic idea about lexical aspect and the aspectual representation model proposed by Croft (2000). Section 2 analyses some Japanese predicates in terms of Japanese tense/aspect (TA) constructions, namely the Present, the Past, and the *Te-iru* form, following Croft's (2000) analysis of English TA constructions.

3.1. Representational model of aspect and aspectual types

3.1.1. Aspectual classes of Vendler (1967)

Vendler (1967) proposes four aspectual classes for English predicates. These are states, activities, achievements, and accomplishments. There follows a summary of his classification.

Table 1. Vendler's classification of aspect

States (unbounded and durative): *X loves Y*
Processes ⟍ Unbounded (atelic); **activities**: *X is running*
⟍ Bounded (telic) ⟍ Punctual; **achievements**: *X reaches the top*
⟍ Durative; **accomplishments**: *X builds a house*

The distinction between the four types has been widely accepted and is motivated by grammatical behaviour. In brief, states and achievements are distinguished from activities and accomplishments in that the former do not have continuous senses (this is shown by the ungrammaticality with the Present Progressive) and do not indicate processes going on in time while the latter do (e.g., *John is running* and *Jack is building a house*).

States denote situations which last for a period, while achievements denote situations which are predicated for only single moments of time. The former are used with the temporal adverbial indicating "interval" while the latter are used with temporal adverbials which refer to a point in time, as the following examples show:

(1)   At what time did you reach the top?   At noon sharp. (Vendler 1967: 102)
(2)   For how long did you love her?   For three years. (Vendler 1967: 103)

Activities are atelic and achievements and accomplishments are telic. The difference is manifested by the use of adverbials. *In*-adverbials (Croft's (2000) container adverbials) occur with telic predicates and *for*-adverbials (Croft's (2000) durative adverbials) occur with atelic predicates.

(3)   I ran for an hour/*in an hour. (atelic)
(4)   I reached the top in an hour/*for an hour. (telic)
(5)   I built a house in one year/*for a year. (telic)

Croft (2000) adds to Vendler's classification of aspectual distinctions by adopting a finer-grained analysis. The other important point Croft (2000) makes is that verbs have varying aspectual behaviour, that is, even a verb can have more than one of the aspectual types above, depending on different Tense/Aspect constructions and context as well. For example, the event of pushing a cart is an activity but that of pushing the cart to New York is an accomplishment. Therefore, we cannot classify "push" as belonging to one aspectual type. To give a more felicitous account of the aspectual behaviour of predicates, Croft (2000) distinguishes **aspectual types** and **aspectual classes**. Aspectual types are universal and describe the semantic structures which are found in languages. Accomplishments or activities are aspectual types. Aspectual classes are language-specific and are defined by the range of construals that the class of verbs allows with various TA constructions. Situation types are divided into aspectual classes by examining their distributional behaviour in relation to the

different TA constructions which are available in a certain language, namely what interpretation verbs get in a certain TA construction (i.e, TA constructions are also language-specific). Predicates which have the same distributional behaviour in TA constructions are grouped together as in the same aspectual class. These points will be further clarified in what follows.

First of all, I introduce Croft's basic model for aspectual representations with notations, and illustrate them with his finer-grained universal aspectual types that are possible in the real world. Croft (2000) starts from Vendler's four aspectual types and further classifies them into smaller categories.

3.1.2. Croft's (2000) basic aspectual representation model

The tense and aspect system has often been discussed with representations using a linear diagram that refers to a temporal transition from left (past) to right (future) with the present moment in the middle. (Comrie (1976), Dowty (1979), Machida (1989)). Croft (1999b, 2000), however, uses a two-dimensional diagram approach to aspectual representation.

3.1.2.1. Basic notations and concepts

Croft's aspectual representation is a two-dimensional diagram consisting of a qualitative state/change dimension (notated as Δ) and a time dimension (notated as t) as follows (Croft 2000: 2, Figure 1):

Figure 1. The basic representation for verbal aspect
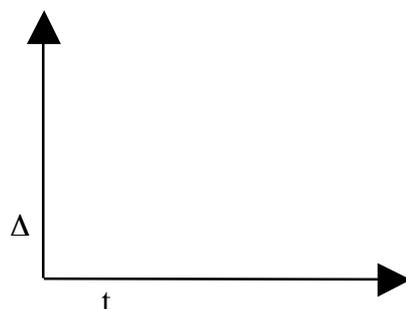
The addition of the qualitative dimension to a common time scale dimension is a unique property of his representation. The qualitative dimension encodes the "relevant" qualitative states and changes in an event. When we say *The door opened*, the state of the door concerning its openness is encoded in the qualitative dimension and not its colour, for example. The qualitative dimension is represented on the ordinate and the time dimension is represented on the abscissa. (We shall see the motivation for the two-dimensional representations later).

The course of an event from its beginning to the end is described as the **aspectual contour** in the diagram. Each participant in the event is supposed to have its own aspectual contour that represents its state and processes[1]. The following is an example for *The door opened* (Croft 2000: 3, Figure 3).

Figure 2. The aspectual representation for the door opened.

---
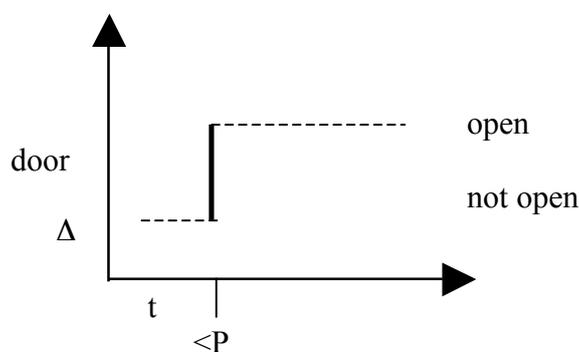
[1] However, in this chapter, I limit myself to representing a single aspectual contour per event to show introductory and fundamental ideas of the aspectual representation.

The participant, *the door*, undergoes a transition (represented by the vertical line) from being not open (a rest state that is represented by a lower horizontal line) to being open (a result state that is represented by a higher horizontal line). All these geometrical representations make up the aspectual contour[2] (in the above case, the aspectual contour for "the door"). Each composite piece of the aspectual contour is called a **phase**.

Following one of the main innovations in semantic representation in cognitive linguistics (cf. Croft's causal analysis in the previous chapter), we maintain a distinction between **profiled** phases and **unprofiled** ones in the aspectual contour. Profiled phases are those that are asserted by a sentence. The other phases which are not profiled function as necessary/background information which is required to understand the meaning of the profiled part encoded by a sentence. They are considered as the frame or base.

As in Figure 2, a bold black line means that the phase is profiled and a broken line means that the phase is not profiled. The phase which is asserted in the event is, thus, the transitional change of the door from being closed to being open. The phase prior to the transition is presupposed: the door is presupposed to have been closed before the change happened. The phase following the transition is implied as part of the natural course of events: it can be implied that the state of the door being open holds, at least, for a while.

Finally, the past tense is used with the example. That is, the transition is interpreted to occur in the past. The transition is placed in the time scale with the notation "<P" in the time prior to the present in Figure 2.

A difference in profiling can denote another related but distinct event. For example,

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[2] In some cases, only one phase makes an aspectual contour. We shall observe examples later.

here is the diagram for *the door was open*:

Figure 3. Aspectual representation for The door was open.
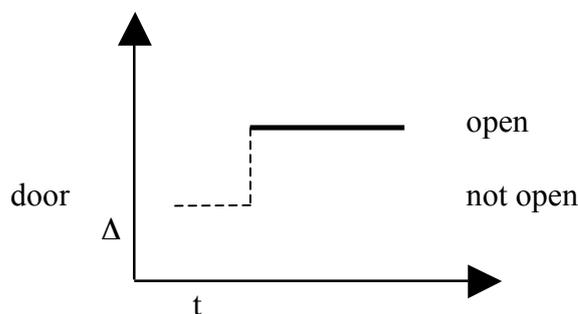
The *be*-verb plus the adjective *open* asserts the state after the transition had occurred. If we compare Figure 3 with Figure 2, the two sentences use the same stem *open*, but they are different in profile. The profiled part should precede the present moment. The past (<P) can denote an interval referring to the state that was true for a certain period which precedes the present.

The geometric semantic representation for sentences is, to be more precise, a representation of a verb stem combined with the tense/aspect (TA) constructions (and sometimes with adverbial phrases), as no verb appears without one of the TA constructions. Both a verb and the TA construction contribute to a meaning of a sentence. As Croft (2000: 4) points out, in the case of the first example (*The door opened*), the verb stem *open* contributes to the profile in the aspectual contour and the simple past specifies that the profiled part is mapped onto a temporal point which is prior to the present.

The above example is a simple one. However, there are many different classes of verbs that interact with many different TA constructions, so we need to examine the wide varieties from both sides. What is more complex is that the combination of a verb stem and the TA construction can involve a construal operation. I shall return to this issue in §3.2.1.

3.1.2.2. Aspectual types of events

Now that we have a basic representational tool for the aspectual analysis, we can examine the different kinds of event aspectual types and how they can be shown in the geometric representations. Each aspectual type is accompanied by English examples.

3.1.2.2.1.States

There are three subcategories of states: point states, inherent states, and transitory states.

3.1.2.2.1.1. Point states

Point states are states that occur only at a point in time, such that "the state does not hold before the point in time, and ends immediately after that point in time" (Croft: 2000: 6). Only the point state is profiled. The inceptive phase immediately precedes the point state and a terminative phase immediately follows it. (These all occur in the same point on the t scale).

Figure 4. The aspectual type of point states (Croft 2000: 6):

examples: *be 5 o'clock, be on time*
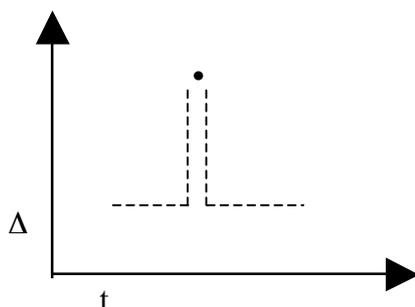
There are two states on the Δ dimension. One is the state which is denoted by the predicates and the other one is the state of not having that state. In the example of *be 5*

o'clock, there is a state which is five o'clock and the other which is not five o'clock. Ideally, these two states should not be connected by a line but understood as two separate points as there is a quantum leap from one to the other. Only as a convention, we use a continuous line to indicate a transition (quantum leap) between the two states. The first (left) transition phase is called the directed[3] transition (**d-transition**) and denotes a change from the rest state to another state. The second (right) transition phrase is called the **r-transition** (*r* can be that of a return, reverse, or rest state) and denotes a change back to the rest state. A point between the two transitions only holds for a single point in time, so that point is called the point state (**p-state**). Only this phase is profiled. It is worthy of note that, in the representation of aspectual types, it is important to show which parts are profiled in their aspectual contour.

Technically, the two transition lines and a point state have to be located at the same point on the time scale. Because of the difficulty in representing them, I illustrate the two transitions as two different lines.

Finally, as a convention, an original state is represented lower in the Δ scale and a result state is represented higher.

3.1.2.2.1.2. Inherent states

Inherent states are states that are conceptualised as an inherent property of the individual. There are two types of inherent state; original inherent states and acquired inherent states. An original inherent state is a property which is held by the individual from its origination. For example, the inherent state of being a lizard is fixed from the birth of the referent and cannot change. An acquired inherent state is an inherent property that can be acquired and which stays forever. Being tall as a human's

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[3] The word, *directed*, is used to indicate that the individual ends up with a new result state, which is

physical property, for example, will stay, once an individual has acquired that state. The following are the aspectual types of the two types of inherent state.

Figure 5. The aspectual type of original inherent states (Croft 2000: 7)

example: *be a lizard*
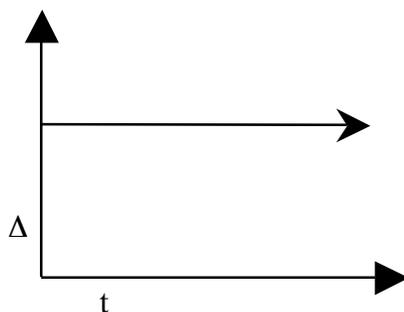
The phrase above is called an inherent state (**i-state**) and represents a state without a beginning point or end. The state is construed to last till the end of the history (existence) of the individual.

Unlike original inherent states, an acquired inherent state presupposes the beginning point of that property being held by the individual.

Figure 6. The aspectual type of acquired inherent states (Croft 2000: 8)

example: *be tall*
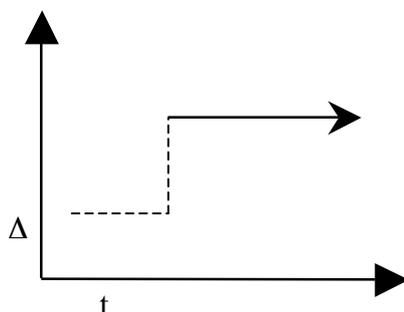
The rest state and the d-transition which are represented by broken lines in the above

different from the rest state.

Figure indicate that there is a time where a non-i-state holds and there is a change of acquiring an i-state.

3.1.2.2.1.3. Transitory states

Transitory states are states that occur in a finite period of time (such as the door being open). According to Croft (2000: 8), a transitory state may be a point in time, or at least profile just a point in time, because of its compatibility with temporal locative adverbials (as in *She was ill at 5: 00*.(She was in the state of being ill at 5: 00)), or can be an interval (such as *She was ill all week*). The following is the representation for a transitory state.

Figure 7. The aspectual type of transitory states (Croft 2000: 8)

examples: *(door) be open*, *(Jack) be ill*
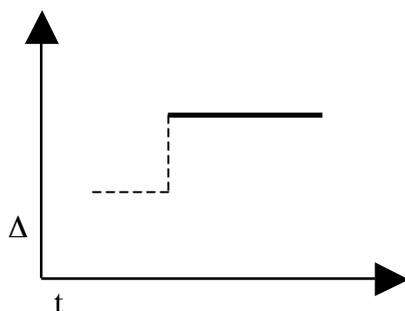
A transitory state presupposes the inception of the event as an acquired inherent state, but does not include its termination. Croft (2000: 8), who points out that whether a terminative part should be represented as a base or not is an interesting and difficult problem for the representation, argues for the asymmetric treatment of inception and termination. That is, the inceptive phase but not the terminative phase should be included in the aspectual contour. He attributes the asymmetrical treatment of inception and termination to the asymmetry of time. It is clear that there is an

inception phase leading to the transitory state. However, it is not certain whether the transitory state will come to terminate or persist in the future, though it is expected to end at a certain time in the future. Therefore, Croft leaves the termination phase unexpressed in the representation, noting that only those parts of the aspectual contour which can be safely presupposed should be included in the representation.

Finally, the profile part of state above is called the transitory-state (**t-state**).

3.1.2.2.2. Activities (unbounded processes)

Unlike states, activities involve continuous change on Δ, as they refer to a kind of process. However, the continuous change does not reach any new resulting state, and is thus unbounded. Activities are also extended over the *t* scale as they do not occur with a punctual locative adverbial[4]. They are not inherent because they have a beginning and an expected end just as transitory states do. There are two types of activities: undirected activities and directed activities. The former involve a change which is not construed as a directed change, such as dancing which only denotes the activity of moving one's body. The latter involves a directed change such as *the balloon expanded slowly* (Croft 2000: 10) where the size of the balloon becomes spatially bigger as time goes by.

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[4] *She danced at 11pm* is not allowed under the interpretation of "she was dancing at the time of 11: 00" (Croft 2000: 9).

The aspectual types of undirected activities are represented as follows.

Figure 8. The aspectual type of undirected activities (cf. Croft 2000: 9):

examples: *run, swim, dance*
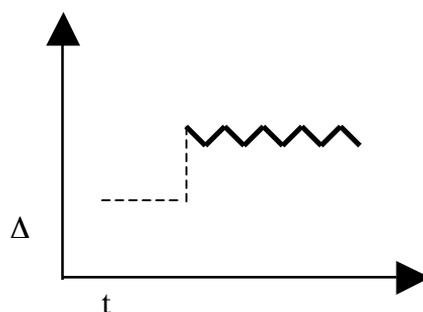
The undirected activity is represented as a zigzag line which is extended over the Δ

dimension and the *t* dimension to show it involves a kind of cyclic process such as

taking a series of steps in the undirected activity of walking. The profiled part is called

an undirected process (**u-process**). The inception to the u-process is not profiled and

the u-process is open-ended to show the transitory nature of the activity (as in the

representation of the transitory state).

Directed activities can be represented as follows:

Figure 9. The aspectual type of directed activities (Croft 2000: 10):

examples: *widen, expand*
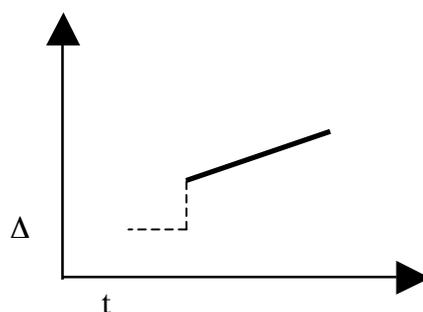
The profiled part is called the directed process (**d-process**), which is a vector that indicates that the change involved in the directed activity has a direction and is gradual. It has no specific endpoint. As in transitory states and undirected activities, the inception is not profiled and the termination is not represented, so as to show the nature of transitoriness.

3.1.2.2.3. Achievements (punctual bounded processes)

Achievements are punctual bounded processes. In bounded processes an event is bounded by two distinct states, that is the rest state and the result state, and the process traverses the Δ dimension from the rest state to the result state. 'Punctual,' means that the process traverses from the rest state to the result state instantaneously. That is, the event is construed as taking place instantaneously.

Only the inception (d-transition above) is profiled and not the result state. Croft argues that such a representation is felicitous in reflecting the entailment that the participant has achieved the result, since the first point of the result state is profiled.

Achievements are classified into three subtypes depending on the type of result state they take.

3.1.2.2.3.1.Cyclic achievements

Achievements are classified as cyclic achievements if the result state of achievements is a point state where the participant immediately returns to the rest state after momentarily achieving the point state.

Figure 10. The aspectual type of cyclic achievements[5]

examples: *flash*, *squeak*, *tap* (in semelfactive reading)
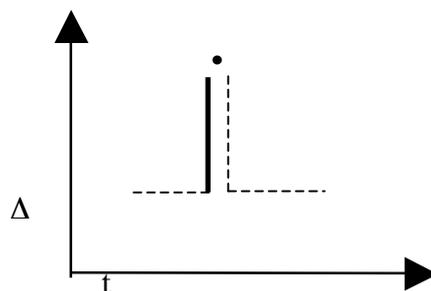
3.1.2.2.3.2. Reversible directed achievements

Achievements are classified as reversible directed achievements if their result state is

a transitory one. Such achievements are called reversible, because the transitory state

is expected to end in the future.

Figure 11. The aspectual type of reversible directed achievements

example: *X open*, *X fall ill*

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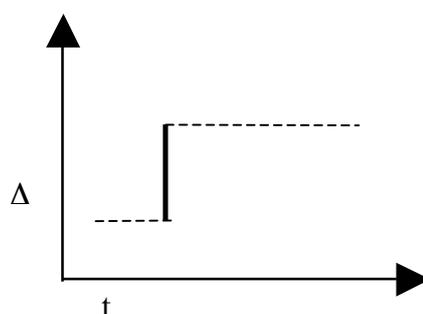
[5] To make the representation clear, I put a point state in the representation separately from the inception
phase, but technically it should be understood as the upper point of the inceptive transition (and also of
the terminative transition).

3.1.2.2.3.3. Irreversible directed achievements

Achievements are classified as irreversible directed achievements if the result state of achievements is an inherent state.

Figure 12. The aspectual type of irreversible directed achievements

example: *break, shatter, die*
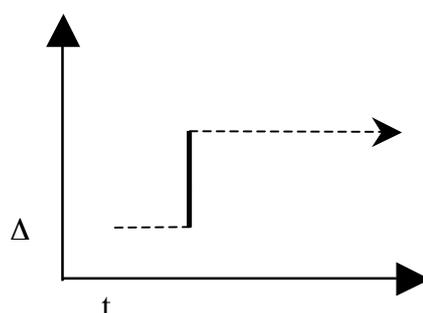
3.1.2.2.4. Accomplishments (extended bounded processes)

In accomplishments, the process does not only extend over the Δ dimension (involving a change from one state to another) but also over the *t* dimension. They include directed processes which "incrementally" lead to the result state. A good example of an accomplishment is eating a pizza. Every bite of eating the pizza gradually brings about the final result state where all the pizza is consumed. Dowty (1991: 567-571) introduces the notion of incremental theme, by which he refers to an entity that undergoes incremental change. This determines the aspect of a situation denoted by a predicate, with its parts corresponding to those of the event itself. In the above example, the pizza is the incremental theme as its status reflects the aspectual status of the situation of somebody's eating the pizza. If the pizza is half gone, then the situation of somebody's eating the pizza is half-done. If the pizza is completely gone, then the situation of eating the pizza is also completely finished. That is, the

incremental theme "measures out" (Tenny 1992) the event.

An incremental theme is not necessarily an argument of a verb. It can be the path, for example, with verbs of directed motion such as *Jack went to New York.* In this case, it is the path to New York that undergoes an incremental change by being traversed. A participant which travels the path is a **holistic theme** (Dowty 1991: 569). This term refers to a participant who has a close relationship to the incremental theme. In the above example, Jack does not undergo the incremental change, but his relative positioning with respect to the path undergoes the change.

Hay et al. (1999) argue that an incremental theme is "properly construed as a measure of some property of an argument of a verb, not an argument", pointing out that the nature of a gradable property depends on the lexical meaning of the verb. They argue that "the lawn" in mowing the lawn, which is the original example of an incremental theme given by Dowty, is actually not an incremental theme but that a property of the lawn (its area) is an incremental theme. The lawn is the argument which possesses the measurable property. That is, it is identical to the holistic theme of Dowty in that it is closely associated with a kind of scalar property. Croft (2000: 12) calls the scalar property/incremental theme the **verbal scale** and also uses the term holistic theme for an argument which is associated with the verbal scale.

Croft (2000: 12) further argues that the directed activity actually has a verbal scale, since it involves gradual directed change. The example he gives is the act of eating pizzas. As "pizzas" here is a bare plural noun, it does not specify the endpoint. However, every bite of eating represents an incremental change on the verbal scale, i.e. the consumption of pizzas. The difference between accomplishment and directed activity is that the former has a definite measurement on the verbal scale and the latter does not. The aspectual type of an accomplishment, therefore, involves a d-process as

follows:

Figure 13. The aspectual type of accomplishment (Croft 2000: 12)
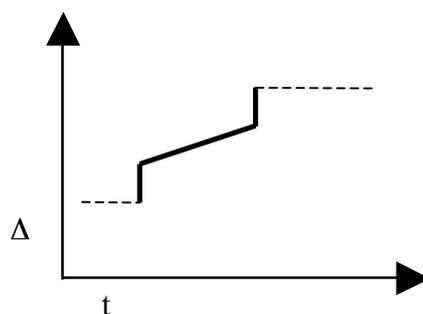
Croft argues that three phases of accomplishments: the inception of the directed process, the directed process itself, and the completion of the directed process, are all profiled, at least in the simple past tense. Since accomplishments are bounded processes, they are bounded by the two d-transition phases, which are the inception and the completion.

According to Croft (2000: 13), justification for profiling the inception and completion phases is provided by the difference in behaviour of accomplishments compared to that of undirected activities and transitory states with interval locative adverbials such as *in the afternoon*.

(6)   She danced in the afternoon. (activity)
(7)   She was miserable in the afternoon. (transitory state)

In the above examples, locative adverbials only indicate what state of affairs held during the afternoon; they do not indicate whether or not the state is true before or after that interval. However, in an accomplishment as in the (8), the entire event is construed as having happened in that interval.

(8)   She wrote her term paper in the afternoon. (accomplishment)

The entire event of writing her term paper including inception and completion is asserted to have taken place in the time period denoted by the adverbial; the sentence

entails that she began and completed the term paper in the afternoon.

Every bounded event is seen to involve a verbal scale. Directed achievements (i.e. reversible achievements and irreversible achievements) can actually be seen as trivial versions of accomplishments (Dowty 1991: 568 and Croft 2000: 13). For example, in *John broke the glass*, the glass undergoes definite change instantaneously. That is, the change is so trivial that the event is construed as having no intervening process (d-process), and the inception and the completion are represented as coinciding in directed achievements. Croft (2000: 13) describes the directed achievements possess a **trivial** verbal scale.

Another important point to note is that a determinately quantified argument functions as a verbal scale (Croft 2000: 14 following Dowty 1991: 570). Typical examples are plural subjects or direct objects: *John visited 25 cities* or *2,500 tourists visited Atlanta* (Dowty 1991: 570). Because of the quantification, the events themselves are delimited and also have intermediate stages (John visited 25 cities one by one and 2,500 tourists visited Atlanta one after another). In these cases, the verbal scale is entailed not by a meaning of the verb but by the semantics of the argument. This is called a **derived verbal scale** by Croft (2000: 14) following Dowty's derived incremental theme.

Accomplishments are further classified into three subtypes according to what type of result state they entail after the completion phase. An accomplishment whose result state is a point state is called a cyclic accomplishment. An example is *Judith danced the kopanica*. It takes time to dance the kopanica from its beginning to its end. However, when the dance finishes, the performance will exist no more. Accomplishments are classified as reversible (directed) accomplishments, if the result state of an accomplishments is a transitory state. An example is *I pruned the hedge*. It

takes time to prune the hedge, but after a while it will grow again. The representation of Figure 13 above is that of reversible (directed) accomplishments. Finally, irreversible (directed) accomplishments are accomplishments whose result state is an inherent state as in *I burned down the shed*. Once the shed has been burned down, it will stay burnt down. The representation for cyclic accomplishments and irreversible directed accomplishments is the same as in Figure 13 except for the result state.

3.1.2.2.5. Runup achievements

The last aspectual type is runup achievements. In runup achievements, a participant undergoes the process "which culminates in the achievement" (Croft 2000: 15); the process has a specified resulting state, which occurs instantaneously, as in the case of achievements. However, before the completive phase, runup achievements require a process that is extended over the *t* scale but that does not involve an incremental change to achieve that state.

   Prototypical runup achievements are manifested as basic achievement verbs with the progressive form in English such as *die* in *He's dying*. The sentence refers to the process that leads to his dying state. However, that dying process does not occur incrementally. The transition to dying should be captured as happening instantaneously as we do not have the state of being half-dead or two-thirds dead. According to Croft, most English achievement verbs can have the progressive form under the runup achievement reading. The representation for runup achievements is as follows:

Figure 14. The aspectual type of run-up achievements (Croft 2000: 15)

example: *He's dying.*
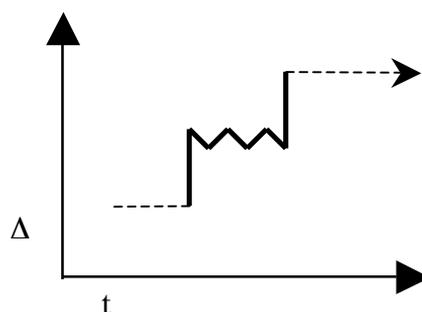
Technically, we should interpret that the instantaneous transition of achievement events is reconstrued and extended as consisting of the three profiled parts (as in accomplishments): inception, activity, and completion. The non-incrementality of the activity, however, is represented as a u-process unlike in accomplishments. Croft (2000: 15) justifies profiling the inception and the completion in runup achievements by their co-occurrence with container adverbials such as *in a week*. An example is *She died in a week.* A week specifies the temporal interval from a certain reference point when she is construed as starting "dying" to the completion of the death. Runup achievements are bounded by an inception and a completion. To summarise, they are "bounded processes which lack a verbal scale and yet are extended in time" (Croft 2000: 15).

Theoretically, there should be three variations of runup achievements as with other aspectual types according to the type of result state that follows. Cyclic runup achievements have a point state following the runup achievement. An example is *flash* in *The lighthouse is flashing*, with which we can imagine a situation where the lighthouse light gradually becomes visible as it slowly rotates and an observer sees the light as coming and going instantaneously. Reversible (directed) runup achievements have a transitory state as their result state as in *falling asleep*. Irreversible (directed)

runup achievements have an inherent state as in *She's dying* as in Figure 14.

3.1.3. Summary of the aspectual types

Basic aspectual types are summarised as follows:

Table 2. Basic aspectual types (cf. Croft: 2000: 16):

profiled contour preceding (result) state	type of (result) state:		
	Point	interval	history
none	*point state*	*transitory state*	*inherent state*
achievement	*cyclic achievement*	*reversible (directed) achievement*	*irreversible (directed) achievement*
accomplishment	*cyclic accomplish-me nt*	*reversible (directed) accomplish-me nt*	*irreversible (directed) accomplishment*
runup achieve-ment	*cyclic runup achievement*	*reversible (directed) runup achievement*	*irreversible (directed) runup achievement*
profiled contour preceding process:	type of process:		
	undirected	directed	
none (process profiled)	*undirected activity*	*directed activity*	

There are fourteen possible aspectual types, each of which can be represented as an aspectual contour which comprises one phase or a combination of phases, and profile. There are seven types of phases, namely, the p-state, the i-state, the t-state, the d-transition, the r-transition, the d-process, and the u-process. Thus, it is possible to denote aspectual types in terms of a sequence of phases. For example, irreversible (directed) accomplishments are described as having the contour of t-state – **d-transition – d-process – d-transition** – i-state. (The bold parts are profiled parts.) The above table is just a brief summary, to serve as a guide to what kinds of aspectual event types are possible in a language. A full two-dimensional representation for aspect will be employed later in the thesis in analysing verbs of putting and removing.

In the rest of this chapter, we shall examine how Japanese predicates are classified into smaller aspectual classes in terms of the behaviour and interpretation they get in the three TA constructions, which are the Present, the *Te-iru*, and the Past constructions. We also see how these three constructions can be polysemous, having different aspectual construals.

3.2. Analysis of Japanese TA constructions and aspectual classes

Now I shall analyse Japanese predicates in three constructions, the Present construction, *Te-iru* construction, and the Past construction. Japanese predicates include "noun + *da* (*desu*) form", "nominal adjectives[6] + *da* (*desu*) form", and adjectives as well as verbs. The copula *da* can be combined with either a noun or a nominal adjective to produce the simple Present assertive sentences as in examples (9)-(10) below. *Desu* is a polite version of *da*. However, I only deal with the *da* case in the present study because it is not our concern whether the sentences are in a polite or bare form.

(9)   Noun plus *da*
       Kare wa   isha   da.
       he   TOP   doctor DA[7]
       He is a doctor.

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[6] Nominal adjectives are a unique syntactic category in Japanese which have the characteristics of both adjectives and nouns.

[7] In examples of this chapter, I use "DA" as indicating this unmarked copula. Another thing is to mention is that Japanese uses quite a few postpositional markers. In the following examples in this chapter, TOP means topic marker, NOM means nominative marker, ACC means accusative marker, GEN is genitive marker, and CLSS is classifier. OJCT is assigned to the use of *ni* which is similar to English accusative in its meaning, but which is not an accusative marker. I gloss other postpositions as English prepositions whose meaning is closer to each postposition in Japanese. The detailed description of Japanese postpositions will be given in the next chapter.

(10)   <u>Nominal adjective plus *da*</u>
       Watashi wa   amaimono ga   suki   da.
       I   TOP   sweets   NOM   be.fond.of DA
       I like sweets.

Adjectives end with *i* in the simple Present tense.

(11)   <u>Adjective</u>
       Kanojo wa   utsukushii.
       she   TOP   beautiful
       She is beautiful.

These predicates have the tense distinction (non-past vs. Past) but do not take an aspectual distinction (which is manifested as *te-iru*, which will be discussed later). For the past tense, the Past tense marker *ta* is used at the end of the predicate.

(12)   Kare wa   isha   dat-ta.
       he   TOP   doctor DA-PAST
       He was a doctor.

(13)   Watashi wa   amaimono ga   suki   dat-ta.
       I   TOP   sweets   NOM   be.fond.of DA-PAST
       I used to like sweets.

For adjectives, *ta* cannot be attached to the adjectival root directly and *kat* must be inserted between the stem and *ta*.

(14)   Kanojo wa   utsukushi-kat-ta.
       she   TOP   beautiful-inflection-PAST
       She was beautiful.

3.2.1. Basic background for analysis

I shall now review Croft (2000)'s analysis for English predicates since it is the model used in the analysis of Japanese in this chapter. He classifies English verbs into different aspectual classses according to the aspectual types they get in various TA constructions. As he points out, 'many classes of verbs display schizophrenic aspectual behaviour, in that they sometimes behave like one of the basic aspectual types and sometimes like another.' What happens is that many verbs belong to one

basic aspectual type in one TA construction and to another one in another TA construction or the same TA construction under another interpretation. The complexity here resides in the nature of the encyclopaedic knowledge of event types and in what is called a construal operation by the speaker. Speakers of different languages or even of the same language possibly construe the same event that has happened in the world in distinct ways.

Verbs appear in a variety of TA constructions such as the Simple Present tense, the Past tense, the Present Progressive, profiling changing constructions, such as the inceptive construction (*start to Verb*) or the completive construction (*finish Verb-ing*), adverbials such as iterative adverbials, durative adverbials, and container adverbials etc. (For details, see Croft (2000)). The combination of a verb stem and a certain TA construction, in most cases, involves a construal operation. There are two types of construal operation: (i) only shift in profile or (ii) reconstrual of the aspect contour itself. One example is an achievement type verb *break*. We interpret the verb itself as having a profiled inception phase in the "t-state – **d-transition** – i-state" contour. When it is used in the resultative adjective construction as in *The glass is broken*, there is a shift in profile, i.e., "t-state – d-transition – **i-state**", as the construction profiles the result state alone. The verb appearing in the simple present tense such as *The glass breaks easily* construes an event as a state "**i-state**". The process is reconstrued as a generic/inherent property of the glass in that it is capable of undergoing the process easily.

Since verbs always appear with (a) certain TA construction(s) in a sentence, we need to examine how a single verb actually behaves with various TA constructions in order to distinguish which part of the meaning of a whole sentence is contributed by a verb. Croft (2000), through investigating complex behaviours of verbs stems and the

T/A construction in English, has attempted to find invariant meanings for them, has tentatively identified definitions for each TA construction and has classified 44 situation types into 27 aspectual classes.

Limitations of space prevent me investigating every TA construction in Japanese, so the rest of the chapter focuses on the three TA constructions: the Present, the *Te-iru*, and the Past constructions. In order to produce my analysis I looked at a certain range of predicates and saw the range of construals they allow with the three constructions above and separated them into Japanese aspectual classes. I deal with forty-eight situation types, the details of which are presented in Table 4 in the summary at the end of this chapter. Situation types are types of "the qualitative semantic classification in terms of types of experiences described by predicates" (Croft 2000: 1). Examples are Social Role, Dispositions, Manner of Motion, and so on.

3.2.2. Criteria

I shall give criteria for identifying construction senses for the Japanese Present, *Te-iru*, and Past constructions based on Croft's (2000) analysis of English. First of all, the following senses are excluded from the present discussion.

Present—Future Present (future time reference), Historical Present

Past—Past of realisation of expectation[8] (Teramura 1984: 105-106)

Secondly, the following features of the TA constructions are either fixed or left to

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[8] This is the Past which does not refer to past events. An example is the expression of *Hon ga at-ta* (book NOM exist-PAST = Here was the book.) This can be used for the situation where the book exists in the present moment. One can say the phrase when one finds the book after looking for it for a while. What this shows is that, in reality, the book has been there but that the speaker did not know about this till the moment he found it. This use should be treated in irrealis mental space and is excluded from the discussion.

vary, conforming to Croft's analysis:

Referent Specificity (fixed)—The argument referent is fixed as a single and specific referent. That is, accomplishment construals with a derived incremental theme/verbal scale are excluded. Japanese expressions can be ambiguous in terms of number of arguments. For example, *mushi* 'insect' can be interpreted as singular or plural. In this case, I disambiguate the referent as singular by using the demonstrative adjectives such as *sono* ('that, the').

Argument Structure (varies)—The argument structure varies while the situation type for a predicate in question remains the same. For example, *oou* 'cover' can appear in a two-argument transitive construction (as in *The fog covered the city*) or three-argument transitive construction (as in *My father covered his car with a sheet*). The situation type in both constructions is the same in that it refers to an event of somebody/something covering another entity. Therefore, the verb in the two constructions is treated as one situation type.

Referent Type (varies)—The referent type can also vary. For example, *miru* 'watch, look at' can be used to describe an event of looking at "the sky" and an event of watching "the video". (Interestingly, English uses different verbs for the two events.) The referent types are different, but the situation type of *miru* is still the same one of paying one's perceptual attention to something. Therefore, the referent types can vary in a single situation type.

Adverbial Support (varies)—Adverbial support can be used to get a certain construal. For example, some achievement verbs can get the runup achievement reading with *te-iru* only with the support of a container adverbial. In this case, I adopt the analysis that a predicate can occur with that construal in a certain construction, following Croft (2000: pers.comm) who does "not distinguish

between predicates requiring adverbial support for a particular construal in a particular TA construction and predicates not requiring adverbial support."

Finally, because of limitation of space, I do not list all the examples with each distinct sense the constructions have. For this full data, the reader is referred to Appendix A.

3.2.3. Analysis

3.2.3.1. The Present construction

Formally, in the Present construction, verbs end with the unmarked form "*u/ru*", nouns and nominal adjectives are combined with the copula "*da*" (e.g. *isha da* 'doctor DA' = be a doctor or *kirei da* 'beautiful DA' = be beautiful), and adjectives end with "*i*" form.

The Present construction in Japanese has four different construals: inherent state (coded as **1I**), transitory state (coded as **1T**), habitual (coded as **1H**), and uninterpretable (coded as **1***). I regard "uninterpretability" as an independent construal following Croft (2000).

The first construal is of an inherent state. This construal is quite common with the following predicates.

[1-1Natural Kinds]
(15)
 Sono ishi wa daiamondo da.
 that stone TOP diamond DA
 That stone is a diamond.

[1-2 Ethnicity]
(16)
 Kanojo wa igirisujin da.
 she TOP English DA
 She is English.

[1-3 Biological Kinds]
(17)
 Are wa tokage da.
 that TOP lizard DA
 That is a lizard.

[1-4 Physical Properties]

(18)
Kare wa se ga takai.
he TOP height NOM tall
He is tall.

The inherent state construal includes the generic interpretation that describes a property of the individual as an inherent state. The following are examples:

[18 Blooming]

(19)
Sono hana wa umibe ni saku.
the flower TOP seaside at bloom
The flower blooms (grows) at the seaside.

[21-1 Light Emission]

(20)
Sono dentou wa sukoshi no enerugi de hikaru.
the light TOP little GEN energy with shine
The light shines with little energy.

[26 Motion/Movement]

(21)
Sono omocha wa denchi de ugoku.
the toy TOP battery with move
The toy moves with a battery.

Some other predicates may get adverbial support, such as *jouzuni* "well", *hayaku* "fast", or *kantanni* "easily", to refer to the inherent property of the subject, namely, the ability of the subject.

[20 Open/Close]

(22)
Sono mesu wa kantanni kanbu o hiraku.
the surgical.knife TOP easily diseased.part ACC open
The surgical knife opens diseased parts easily.

[24 Manner of Motion 1]

(23)
Taro wa totemo hayaku hashiru.
Taro TOP very fast run
Taro runs very fast.

[27 Performance]

(24)
Markus wa warutsu o jouzuni odoru.
Markus TOP waltz ACC well dance
Markus dances the waltz very well.

The second construal of the Present construction is a transitory state. This is a common construal with the following situation types:

[3 Social Role]

(25)
John wa   shachou   da.
John TOP president DA
John is president.

[5 Bodily States]

(26)
Kare wa   byouki da.
he   TOP ill   DA.
He is ill.

Some situation types which can take an 1I construal are likely to get an 1T construal when they are modified with adverbials which specify the temporary nature of events, such as *kyou* "today", *ima* "now", or *mezurashiku* "unusually".

[2-2 Necessity]

(27)
Watashi ni-wa   ima kane   ga   iru$_2$
I   to-TOP now money NOM need/necessary
I need money now.

[2-3 Dispositions]

(28)
Jack wa   kyou   wa   shinsetsu da.
Jack TOP today TOP kind   DA
Jack is kind today.

[9 Perception]

(29)
Kyou wa   mezurashiku Huji-san ga   mieru.
today TOP unusually   Mt.Fuji NOM be.visible
Mt.Fuji is visible today, which rarely happens.

The third construal of the Present construction is associated with the habitual interpretation. It describes a series of repeated events being reconstrued as an inherent property of an individual under a "coarse-grained scalar adjustment" on the qualitative dimension and the time dimension. This is a good motivation for the two dimensional representation for the aspect since the reconstrual of a situation operates on the two dimensions.

The habitual interpretation is found with most of the situation types. In particular, the regularity of events is specified with adverbials such as *itsumo* "always", *yoku*

"often", or translations equivalent to English "every" or "whenever".

[2-3 Dispositions]

(30)
Jack wa   tanomigoto ga   aru toki dake shinsetsu da.
Jack TOP favor   NOM be when only kind   DA
Jack is kind only when he receives a favour.

[13 Sleeping]

(31)
Chichi wa   maiban   11ji   ni nemuru.
father TOP every.night 11o'clock at sleep
My father goes to bed at 11 o'clock every night.

[17 Change of Physical Properties]

(32)
Kono keito no   uwagi wa   sentaku-suru tabi ni chijimu.
this   wool GEN jacket TOP wash   time at shrink
This woolen jacket shrinks every time I wash it.

[28 Create Mark/Defect]

(33)
Watashi wa   yoku juuyouna shorui   o   ayamatte yaburu.
I   TOP often important document ACC mistaking tear.up
I often tear up important documents by mistake.

[30 Covering]

(34)
Hazukashigariya no   kanojo wa   itsumo te   de kao o   oou.
shy.person   GEN she   TOP always hand with face ACC cover
She, as a shy person, always covers her face with her hands.

The last construal is uninterpretability. The following two situation types are ungrammatical with the Present construction. They are "Type 4 verbs" which only occur with the *Te-iru* construction. These will be dealt with shortly in the discussion of *Te-iru*.

[7-1 Relation 2]

(35)
*Kare no   ronbun wa   kono ronbun yori sugureru.
he   GEN article TOP this   article than excel
His dissertation is superior to this dissertation.

[7-2 Posture 1]

(36)
*Huji-san ga   me no   mae ni sobieru.
Mt.Fuji   NOM eye GEN front at tower
Mt. Fuji towers high in front of us.

The situation type of dying and discovering are also uninterpretable with the Present unless the subject is interpreted as plural, i.e., a derived verbal scale. This is because

74

the event of dying and discovering are prototypical irreversible (directed)

achievements. The following is an example for the situation type of dying.

[35 Dying]

(37)   *John wa   maishuu   shinu.
       John TOP every.week die
       *John dies every week.

To summarise, the Present construction in Japanese reconstrues the situations

denoted by verbs as a state. The internal structure of the situation is focused and it

does not specify where a starting point or endpoint of the situation is. The state does

not include the endpoint, thus allowing for the possibility that the situation is never

completed (inherent state) as well as the alternative of it being completed (transitory

state). The Present tense profiles only a point (which is the present moment) in that

state phase.

3.2.3.2. The *Te-iru* Construction

Okuda (1977), Suzuki (1979) cited by Kudou (1995: 36) state that this construction is

one with an aspectual distinction from the Present. It is quite unique to Japanese in

that some of its uses are similar to the Present Progressive of English and others are

similar to the Present Perfect in that language. Therefore, before analysing the

construction, I shall give some basic information about it, citing other scholars' work.

3.2.3.2.1. On *te-iru*

Kindaichi (1976), cited by Tsujimura (1996) and Machida (1989) among others,

classifies Japanese verbs into four classes, which have been widely adopted by many

scholars. They are stative, continuative, instantaneous, and "Type 4". This

classification is based on the aspectual properties, or to be more concrete, on the

interpretation that arises from the *Te-iru* construction[9].

Stative verbs refer to a state being true in the present moment in its unmarked form, that is, the *u/ru* form. In other words, the unmarked form of stative verbs denotes that an event is true at the moment of utterance. They are characterised as not being able to occur with the *Te-iru* construction.

(38) the Present construction
      Hon ga   tsukue no   ue   ni aru.
      book NOM desk   GEN surface at be
      The book is on the table.

(39) the *Te-iru* construction
      *Hon ga   tsukue no   ue   ni at-te-iru.
       book NOM desk   GEN surface at be-TE-IRU
       The book is on the table.

Continuative verbs refer to an event or process which normally has a perceptible beginning and ending and which extends over a certain amount of time. They cover accomplishment and activity type events in English. In order to indicate that an event is true at the moment of utterance, the *Te-iru* construction is used. The unmarked form (*u/ru* form) cannot indicate that the event is in progress. The construction with continuative verbs functions as the Present Progressive in English.

(40) Taro wa   hashit-te-iru.
      Taro TOP run-TE-IRU
      Taro is running.

Instantaneous verbs, as the term indicates, describe an event that occurs and is done instantaneously. A good example is an event such as *shinu* 'die'. Instantaneous verbs refer to instantaneous change from the point where the denoted event is not true to the one where it is true. Though it needs some time for an event to occur in the real world (for example, normally it takes some time before a person dies. i.e. he could be ill for some time or suffer some time), what these verbs indicate in their lexical entry

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[9] The construction has another phonological variant, *de-iru*, which is in complementary distribution

is the immediate transition, just as in achievement type events in English. In the case of dying, it is a transition from being alive to being dead.

Because they are instantaneous, these verbs cannot indicate that a denoted event is true at the moment of utterance. When the utterance is made, the event has already finished. It is only possible to indicate that a result of an event is true at the moment of utterance. The *Te-iru* construction is used for this purpose:

(41)   Inu ga   shin-de-iru.
        dog NOM   die-TE-IRU
        The dog is dead. (The dog has been dead).

According to Teramura (1984:124), cited by Machida (1989: 24), "Type 4" verbs do not have any temporal structure but indicate that something takes on a property of a state/stativity. They are always used in the *Te-iru* construction and never in the *u/ru* form (the Present construction). Type 4 verbs with the *Te-iru* construction can be regarded as frozen idiomatic expressions used as adjectives. They are actually similar to "be boring/surprising/interesting" in English though semantically different.

(42)   Watashi no   ronbun   wa kare no   ronbun   yori sugure-te-iru.
        I   GEN dissertation TOP he   GEN dissertation than excel-TE-IRU
        My dissertation excels his dissertation.
        My dissertation is more outstanding than his dissertation.

(43)   *Watashi no   ronbun   wa kare no   ronbun   yori sugureru.
        I   GEN dissertation TOP he   GEN dissertation than excel
        My dissertation is more outstanding than his dissertation.

We can summarise the types of Japanese verbs with their occurrence and meaning in the *Te-iru* construction as follows:

Table 3. Meanings of te-iru

Type of verbs:	Meaning of the *te-iru* form:
Stative verbs	N/A
Continuative verbs	ACTIVITY IN PROGRESS
Instantaneous verbs	RESULTATIVE STATE
Type 4 verbs	Almost Frozen Expression (they could be always used with the *Te-iru* form.)

with *te-iru*. The term, *te-iru* form/construction, is used to include both these phonological patterns.

The *Te-iru* construction also has another meaning of retrospective ((Machida 1989: 160-161), (Nitta 1997: 237), (Washio 1997: 115), which is applied to all types of verbs that take the *Te-iru* form (except "Type 4" verbs). In this sense it functions as the existential use of the English Present Perfect. The following examples are cited from Machida (1989: 161):

stative verb:

(44) Huji-san wa izenni kono basho kara nido mie-te-iru.
Mt.Fuji TOP before this   place from twice be.seen-TE-IRU
Mt. Fuji has been seen from here twice before.

continuative verb:

(45) Taro wa   sannenmaeni   kono yamamichi   o   arui-te-iru.
Taro TOP three.years.ago this   mountain.trail ACC walk-TE-IRU
Taro (has) walked this mountain trail three years ago.

instantaneous verb:

(46) Koronbusu wa   1492nen ni amerika o   hakkenshi-te-iru.
Columbus TOP 1492year in America ACC discover-TE-IRU
Columbus (has) discovered America in 1492.

According to Machida (1989: 161), these verbs get retrospective interpretation when used with past time adverbials such as *izenni* 'before' or *sannenmaeni* 'three years ago' or in contexts where activity in progress and resultative state meanings are excluded. However, some instantaneous verbs such as *hakkensuru* 'discover' or *mokugekisuru* ' witness') that refer to an event that leaves no perceptible result automatically bear a retrospective interpretation in the *Te-iru* form, even though there are no appropriate adverbials or contexts. (46) will be interpreted to have retrospective meaning even without the phrase 'in 1492.' (For details, see later discussion on the *Te-iru* form.)

Finally, I shall discuss the distinction between perceptible and non-perceptible states. The resultative state reading with *te-iru* is only possible where there is a perceptible state of the action such as in example (41). Here, we see the state of the

dog, and know that it is dead. That is the dog's being dead is the result of its dying (change of state from being alive to being dead). In this sense, intransitive verbs that can be construed as achievement verbs are likely to get the resultative state reading. However, the transitive achievement types (prototypically *korosu* 'kill') can be argued not to have the resultative state reading as it is difficult to see any perceptible state in the subject. The following example illustrates:

(47) Kare wa jibun no   inu o   koroshi-te-iru.
      he   TOP own GEN dog ACC kill-TE-IRU

When we see the state of the dog, we can perceive that it is dead and may see some directed evidence that the dog was killed (such the knife stuck in its stomach). However, merely looking at the dog cannot indicate who has carried out the action. Also we have no direct evidence whether the agent has killed the dog or not, UNLESS he is standing there, with a knife in front of the dog. In this case, we can infer what has happened from the scene. However, this interpretation largely depends on contexts. The distinction between the perceptible and non-perceptible, and thus, that of between the resultative and retrospective readings, is not so clear with transitive achievement verbs (*korosu* 'kill') as with intransitive achievement verbs (*shinu* 'die'). In most of the cases, the direct object of the transitive achievement does not show any perceptible indication of who has done the act, nor does the subject manifest any perceptible result of his action. Therefore, these verbs with *te-iru* (such as (47)) are better analysed as having the retrospective rather than the resultative state reading[10]. Two exceptions are (i) when the agent is realised as *dareka* "somebody" (cf. Machida 1989: 39) since this expression can obscure who has carried the action and the dead state of the dog, for example, can indicate that it is the result of somebody's killing the

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[10] Please note that some transitive achievement verbs can possibly get the activity in progress reading of the runup achievement construal with *te-iru*, which will be discussed shortly.

dog and (ii) when sentences have reflexive construction as in *she dyed her hair* since the state of her hair (a body part of the subject) can indicate that it is the result of her carrying out the action of dying. In these two cases, verbs of transitive achievement can get the resultative reading.

Though we have seen several readings of the *Te-iru* construction, the classification of its distinct uses is coarse-grained. They can be subdivided into small categories in terms of the aspectual types of Croft (2000), reflecting the complexity of the real world situation and of the speaker's construal operation when a certain predicate is used with a certain TA construction.

3.2.3.2.2. Senses of the *Te-iru* construction

In a more subtle classification of aspectual types, the *Te-iru* construction has actually eight senses: the undirected activity construal (coded as **2U**), the directed activity construal (coded as **2D**), the transitory state construal (coded as **2T**), the inherent state construal (coded as **2I**), the runup achievement construal (coded as **2R**), the habitual interpretation (coded as **2H**), the perfect construal (coded as **2F**), and the uninterpretability construal (coded as **2***). The resultative state reading I have discussed in relation to *te-iru* can be split into 2T and 2I depending on the nature of the result state. The activity in progress reading is divided into 2U, 2D, and 2R. The habitual interpretation is a subtype of activity in progress since each event is construed as a cyclic achievement and a series of each event is reconstrued as undirected activity. A retrospective reading is equivalent to 2F in the analysis.

The first construal is undirected activity. This is found as prototypical with the following situation types:

[24 Manner of Motion 1]

(48)
    Taro wa   ima hashit-te-iru.
    Taro TOP now run-TE-IRU
    Taro is running now.

[25 Manner of Motion 2]

(49)
    Hanako wa   ima oyoi-de-iru.
    Hanako TOP now swim-TE-IRU
    Hanako is swimming now.

[26 Motion/Movement]

(50)
    Jishin   de tsukue ga   ugoi-te-iru!!
    earthquake with desk NOM move-TE-IRU
    The desk is moving because of the earthquake!!

[27 Performance]

(51)
    Jacqui wa   ima utat-te-iru.
    Jacqui TOP now sing-TE-IRU
    Jacqui is singing now.

The first three types are verbs of motion without any goal phrases. Performance, without a direct object, also refers to an undirected activity without reaching any result point but merely activity as with singing in example (51).

Some situation types get the undirected activity construal of iterated cyclic achievements.

[22-1 Contact]

(52)
    Jack ga   mado o   tatai-te-iru.
    Jack NOM window ACC knock-TE-IRU
    Jack is knocking at the window.

[22-2 Bodily Motion]

(53)
    Mary wa John ni te   o   hut-te-iru.
    Mary TOP John to hand ACC wave-TE-IRU
    Mary is waving her hand to John.

What the above examples denote is that the cyclic achievement of one knocking at the door or one waving one's hand is iterated without achieving any specific result.

This construal is reinforced in other situation types by using support of reduplicated mimetic/onomatopoeic phrases. Japanese is abundant in onomatopoeic and mimetic expressions that imitate sounds or describe manners. For example, *chu*

imitates the sound of a mouse's cry and *chika* describes the flashing of a light.

Reduplicated means that the words are doubled up with a resultant meaning that an

event they describe is also repeated more than once. As a result, *chuchu* or *pikapika*

indicate or reinforce the fact that the events are repeated. I gloss these phrases as

"ONMP2" in the examples below:

[21-1 Light Emission]

(54)　Sono dentou wa　　chikachika　hikat-te-iru.
　　　the　light　　TOP　ONMP2　　shine-TE-IRU
　　　The light is flashing.

[21-2 Sound Emission]

(55)　Nezumi ga　　chuchu　nai-te-iru.
　　　mouse　　NOM　ONMP2　cry-TE-IRU
　　　The mouse is squeaking.

Other situation types whose force-dynamic relation is similar to inactive action

have also the undirected activity construal. A typical example of inactive action is

holding something, where one participant is engaged in an activity which is not

overtly explicit. In the following situation types, the activities the subject is engaged

in are not so overt.

[12 Emotional Activity]

(56)　Haha　wa　watashi no　　seikou　o　　yorokon-de-iru.
　　　mother TOP I　　　GEN　success ACC　rejoice-TE-IRU
　　　My mother is happy with my success.

[13 Sleeping]

(57)　Chichi wa　ima shizukani nemut-te-iru.
　　　father TOP now quietly　　sleep-TE-IRU
　　　My father is sleeping now.

[14 Perceptual Activity]

(58)　Chichi wa　ima terebi no　　nyuusu o　　mi-te-iru.
　　　father TOP now TV　　GEN　news　ACC　watch-TE-IRU
　　　My father is watching news on TV now.

In the situations denoted above, the subjects are engaged in non-overt activity. The

sentences can be ambiguous between an undirected activity construal and a transitory

state construal, especially in Japanese, since *te-iru* can have the activity in progress reading and the resultative state reading. These above verbs get the achievement reading with the Past construction (see section §3.2.3.3). That is, the situations above may be construed as a resultative state of the achievements. However, I argue that they are undirected activities in that people other than the subject can still see what kind of activities are going on. For example, all the sentences above (from example 56 to 58) can be used to answer the question *What is she/he doing?*. In the case of the first one (emotional activity), this question may sound strange. However, one can show one's emotion in an explicit way. For example, one can ask the daughter the above question, watching her mother crying and wondering what is going on, and she can answer the question with saying the example (56) and explain that the mother is crying with joy. Another good reason to treat them as activities is that they can be modified with a manner adverbial such as *shizukani* 'quietly', as in example (57).

The second sense of the *Te-iru* construction is the directed activity construal. Unlike with the undirected activity construal, the situations are interpreted as increasing the degree on a certain scale (the verbal scale). The following are typical examples.

[27 Performance]

(59)
Jacqui wa   ima Corrs no   shinkyoku o   utat-te-iru.
Jacqui TOP now Corrs GEN new.song   ACC sing-TE-IRU
Jacqui is singing Corrs' new song now.

[29 Consumption]

(60)
Joel wa   yuushoku no   pasuta o   tabe-te-iru.
Joel TOP dinner   GEN pasta ACC eat-TE-IRU
Joel is eating the pasta for his dinner.

[31 Creation]

(61)
Haha   wa   watashi no   doresu o   tsukut-te-iru.
mother TOP I   GEN dress   ACC make-TE-IRU
My mother is making a dress for me.

A characteristic of this construal is that it can occur with adverbial phrases which

illustrate that the situation goes into directed change incrementally such as

sukoshizutsu 'little by little' or *masumasu* 'more and more'. The following situation

types even require this adverbial support to have this interpretation with *te-iru*:

[15 Attitudes]

(62)
    Kare wa   masumasu   hinekure-te-iru.
    he   TOP more.and.more get.warped-TE-IRU
    He is getting more and more warped.

[16 Change of Weight]

(63)
    Mary wa   sukoshizutsu hutot-te-iru.
    Mary TOP little.by.little get.fat-TE-IRU
    Mary is getting fatter little by little.

[17 Change of Physical Properties]

(64)
    Suupu ga   sukoshizutsu atatamat-te-iru.
    soup   NOM little.by.little get.warm-TE-IRU
    The soup is getting warm.

The third construal associated with the *Te-iru* construction is transitory state. The

following are examples:

[17 Change of Physical Properties]

(65)
    Suupu ga   atatamat-te-iru.
    soup   NOM get.warm-TE-IRU
    The soup is warm.

[19 Directed Motion]

(66)
    John wa   jibun no   koya   ni   hait-te-iru.
    John TOP own GEN kennel ALL go.into-PAST
    John is in his kennel (as a result of going there).

[26 Motion/Movement]

(67)
    Kinou   no   jishin   de   tsukue ga   sukoshi ugoi-te-iru.
    yesterday GEN earthquake with desk   NOM   a.little   move-TE-IRU
    The desk has moved a little because of yesterday's earthquake.

[33 Dyeing and Shaving]

(68)
    Kanojo wa   kami o   {kiiroku} some-te-iru.
    she   TOP hair ACC {yellow} dye-TE-IRU
    She has dyed her hair yellow. (Now she has yellow hair.)

Actually, the nature of the result state, especially whether it is transitory or

inherent, is not always easy to judge, since it depends on various kinds of possible

context. Some situation types may have both transitory state and inherent state

construals, depending on the context or adverbial support. The following types also have an inherent state construal (to be discussed shortly) with *te-iru*:

[16 Change of Weight]

(69)
Mary wa   mezurashiku ima   hutot-te-iru.
Mary TOP unusually   now become.fat-TE-IRU
Mary is fat now, which is unusual for her.

[30 Covering]

(70)
Kiri ga   machi o   sukkari   oot-te-iru.
fog   NOM city   ACC completely cover-TE-IRU
The fog completely covers the city.

In example (69), *ima* 'now' forces the transitory state construal and in (70) the types of the arguments give its interpretation as the transitory state.

Situation types which denote situations which can be thought of as inactive action are also thought to have a transitory state reading as well. Unlike the situation types of Emotional Activity, Sleeping, Perceptual Activity, which I referred to as having the undirected activity reading, the following types have the transitory state construal with *te-iru*:

[8 Posture 2]

(71)
Steve wa   asoko ni tat-te-iru.
Steve TOP there   at stand-TE-IRU
Steve is standing over there.

[9 Perception]

(72)
Koko kara Huji-san ga   mie-te-iru!!
here   from Mt.Fuji   NOM be.visible-TE-IRU
I can see Mt. Fuji from here!!

[11 Cognition 2]

(73)
Watashi wa   kami o   shinji-te-iru.
I   TOP God   ACC believe-TE-IRU
I believe in God.

One motivation for assigning the transitory state reading to these situation types is that the above sentences cannot be used as answers to *what are you/is she/he doing?*. Another motivation is that the manner adverbial *shizukani* 'quietly' cannot modify them either. That is, situations denoted by these predicates are closer to 'state' than to

'activity'[11].

The fourth construal of *te-iru* is the inherent state construal. "Type 4" verbs get

this construal.

[7-1 Relation 2]

(74)
Kare no   ronbun wa   kono ronbun yori sugure-te-iru.
he   GEN article TOP this   article than excel-TE-IRU
His dissertation is superior to this dissertation.

[7-2 Posture 1]

(75)
Huji-san ga   me no   mae ni sobie-te-iru.
Mt.Fuji NOM eye GEN front at tower-TE-IRU
Mt. Fuji towers high in front of us.

Intransitive achievement type of situations also appear with *te-iru* with an inherent

state interpretation:

[35 Dying]

(76)
Neko ga   michibata de shin-de-iru.
cat   NOM roadside on die-TE-IRU
The cat is dead on the roadside.

[36 Fracture/Breaking (intra)]

(77)
Heya no   mado   ga   ware-te-iru!
room GEN window NOM break-TE-IRU
The window in the room is broken!

Some situation types that have the 2T interpretation appear in this construal as

well.

[16 Change of Weight]

(78)
Mary wa   hutot-te-iru.
Mary TOP become.fat-TE-IRU
Mary is fat.

[30 Covering]

(79)
Midori no   kigi ga   sono kuni   o   oot-te-iru.
green GEN trees NOM the   country ACC cover-TE-IRU
Green trees cover the country.

Example (78), without the adverbial *ima* 'now', can denote an inherent property of a

person (compared with (69)). In the situation type of Covering (79), the fact that the

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[11] Actually, [8 Posture 2] accepts the adverbial. This shows the ambiguous status of this situation type

arguments are different from those of (70) can make the predicate get the inherent state reading.

The fifth construal is the runup achievements construal. This is identical to runup achievements in English (*She's dying!*), though the number of situation types which allow this construal with *te-iru* is small. They involve a directed transition to a result state (bounded process), and this transition is construed as extended on the *t* scale. However, this transition is not an incremental process, which is shown by the unacceptability of adverbials such as *sukoshizutsu* 'little by little'. The following sentences are all grammatical but would become ungrammatical with the adverbial.

[34 Dressing]

(80) Jacqui wa   ima tonari no   heya de kimono o   ki-te-iru.
      Jacqui TOP now next   GEN room at Jap.dress ACC put.on-TE-IRU
      Jacqui is putting on her Japanese dress in the next room.

[38 Killing]

(81) Haha   wa   kanshasai   ni shichimencho o   kososhi-te-iru.
      mother TOP thanksgiving.day for turkey   ACC kill-TE-IRU
      Mother is killing a turkey for Thanksgiving Day.

[39 Winning]

(82) Nihon chiimu wa   kankoku chiimu ni   genzainotokoro kat-te-iru.
      Japan team   TOP Korea   team   against at.this.moment win-TE-IRU
      The Japanese team is leading the Korean team at this moment.

The sixth construal of the construction is the habitual interpretation. Situation types that have this 2H construal also have the 1H construal but not vice versa. Unlike the 1H construal, 2H construal especially implies the agent's will to have control over the repeated events of habitual interpretation, such as the agent making it a rule to go to bed at eleven at night or to eat rice as a breakfast. For this interpretation, adverbials that manifest regularity such as *maitsuki* 'every month' or *mainichi* 'every day' are required. A lot of situation types allow this construal, but the following examples adequately illustrate the matter:

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between the result state and the undirected activity of inactive action.

[13 Sleeping]

(83)
Chichi wa maiban 11ji ni nemut-te-iru.
father TOP every.night 11o'clock at sleep-TE-IRU
My father goes to bed at 11 o'clock every night.

[29 Consumption]

(84)
Watashi wa maiasa gohan o tabe-te-iru.
I TOP every.morning rice ACC eat-TE-IRU
I eat rice every morning.

The seventh construal associated with the *Te-iru* construction is the perfect

construal. With the adverbial support of past time adverbials such as *kako ni* 'in the

past' or iterative adverbials such as *ikkai* 'once' or *nikai* 'twice', most of the situation

types have this construal. However, the following three examples adequately

illustrate:

[14 Perceptual Activity]

(85)
Chichi wa kako ni ichido yurei o mi-te-iru.
father TOP past in once ghost ACC see-TE-IRU
My father has seen a ghost once in the past.

[24 Manner of Motion 1]

(86)
Chichi wa ichido Honolulu marason de hashit-te-iru.
father TOP once Honolulu marathon in run-TE-IRU
Father has run once in the Honolulu marathon.

[40 Discovery]

(87)
Sono kenkyuu chiimu wa {kyonen} shinsei o hakkenshi-te-iru.
the research team TOP {last.year} new.star ACC discover-TE-IRU
The research team has discovered a new star (*last year).

The Discovery type is the only situation type that has only an 2F construal with *te-iru*.

This is because the irreversible directed achievement that this type denotes cannot be

construed as taking time like a runup achievement nor can it leave any perceptible

result on its direct object.

The last construal with *te-iru* is uninterpretability. Situation types which are

expressed by non-verb predicates are ungrammatical since such predicates cannot be

combined with the *Te-iru* construction, to begin with. Moreover, the situation types of

Existence and Necessity are uninterpretable with the construction.

[2-1 Existence]

(88)
    *Hon ga   soko ni at-te-iru.
    book NOM there at exist-TE-IRU
    The book is there.

[2-2 Necessity]

(89)
    *Watashi ni-wa   kane   ga it_2-te-iru.
    I   to-TOP money NOM need-TE-IRU
    I need money.

To summarise all the above uses, I propose a single unified meaning of the construction, which is that **it takes the temporally extended phase after an achievement (inception or completion) and construes it as an extended state**. One exception is when it is applied to an inherent state. In this case, since the inherent state has no inception phase, the construction takes the temporally extended phase of inherent state and construes it as a transitory state. This case is examplified by [6 Relation1] which has both 1I and 2I construals.

[6 Relation 1]

(90)
    Gengogaku wa   bunkengaku to-wa   kotonaru.
    Linguistics TOP philology   with-TOP differ
    Linguistics differs from philology.

[6 Relation 1]

(91)
    Gengogaku wa   bunkengaku to-wa   kotonat-te-iru.
    Linguistics TOP philology   with-TOP differ-TE-IRU
    Linguistics differs from philology.

Actually, the subtle difference between the above sentences should be attributed to a difference in style. Basically, when the same predicate has the same construals in the Present and with the *Te-iru* constructions as above, the former sounds more assertive and the latter sounds more colloquial and soft[12].

Other construals of the *Te-iru* construction are explained by the above hypothesis. The 2U, 2D, 2I, and 2T construals all have an extended phase after the inception phase (achievement). 2H is thought to be a derived undirected activity type whose

fine-grained construal is iterated cyclic achievements. 2F would be treated like the English present perfect, which Croft (2000) defines as "taking a bounded event preceding the present moment, construing it as an achievement". For example, in the case of somebody's having divorced twice, the d-transition is thought of as that from the event of getting divorced twice having not occurred to that of the event of getting divorced twice having occurred. The aspectual contour of 2F takes the form of irreversible directed achievements as what has happened is unchangeable. Thus, even 2F has a temporally extended phase after the inception.

Finally, it has to be mentioned that the present moment should be included in the state that results from the reconstrual of situations due to the use of the *Te-iru* construction.

Now let us compare our analysis of *te-iru* and that of Jacobsen (1992), who also gives a unified account. He proposes that a unified meaning of *te-iru* is that "it presents a state of affairs as existing in homogeneous, unchanging fashion over a given interval of time" (Jacobsen 1992: 200). The two analyses are not contradictory but harmonious; both of them explain that *te-iru* refers to a state which does not undergo any changes. However, our analysis is more precise than Jacobsen's in specifying what kinds of event phase can be construed as states.

3.2.3.3. The Past construction

The Past construction in Japanese uses the ending "*ta*" with predicates. It has eight construals: the accomplishment construal (coded as **3P**), the achievement construal (coded as **3V**), the cyclic achievement construal (coded as **3C**), the runup achievement construal (coded as **3R**), the undirected activity construal (coded as **3U**), the directed

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[12] Some of my informants have agreed.

activity construal (coded as **3D**), the transitory state construal (coded as **3T**), and the uninterpretability (coded as **3***).

A first construal with the Past construction is the accomplishment. A 3P construal is compatible with container adverbials such as *gohun de* 'in five minutes' or *ichijikan de* 'in an hour', which measure the interval from the inception to the completion of the events. Normally, situation types in this construal have a bounded direct object or a resultative phrase which can serve as a delimiter of the event.

[14 Perceptual Activity]

(92)
Watashi wa   sono bideo o   nijikan   de mi-ta.
I   TOP the   video ACC two.hours in watch-PAST
I watched the video in two hours.

[16 Change of Weight]

(93)
Mary wa   sankagestu de {kirei   ni}   yase-ta.
Mary TOP three.months with {beautiful RST} become.thin-PAST
Mary became beautifully slender in three months.

[29 Consumption]

(94)
Jack wa   ookina sandoicchi o   ippun   de tabe-ta.
Jack TOP big   sandwich   ACC one.minute in eat-PAST
Jack ate the big sandwich in one minute.

Some intransitive verbs also occur in this construal as well.

[17 Change of Physical Properties]

(95)
Suupu wa   gohun   de   atatamat-ta.
soup   TOP five.minutes with get.warm-PAST
The soup got warm in five minutes.

[20 Open/Close]

(96)
Sono tsubomi wa   gojikan   de hirai-ta.
the   bud   TOP five.hour in open-PAST
The bud opened in five hours.

An accomplishment construal, which involve the profiled d-process, can be modified with *sukoshizutsu* 'little by little', which verifies the characteristics of incremental change in the directed activity.

[14 Perceptual Activity]

(97)
Watashi	wa	sono	bideo	o	sukoshizutsu	mi-ta.
I	TOP	the	video	ACC	little.by.little	watch-PAST

I watched the video little by little.

Tochuumade 'halfway' is also compatible with 3P[13], which is bounded with a profiled

d-transition to the result state as well as having the profiled d-process.

[14 Perceptual Activity]

(98)
Watashi	wa	sono	bideo	o	tochuumade	mi-ta.
I	TOP	the	video	ACC	halfway	watch-PAST

I watched the video halfway.

The second construal is an achievement. The following situation types are typical

examples of 3V construals:

[35 Dying]
3V

(99)
Chichi	wa	totsuzen	nakunat-ta.
father	TOP	suddenly	die-PAST

My father died suddenly.

[36 Fracture/Breaking (intra)]
3V

(100)
Sono	tsubo	wa	totsuzen	ware-ta.
the	vase	TOP	suddenly	break-PAST

The vase broke suddenly.

[39 Winning]
3V

(101)
John	wa	5ji	5hun	ni	kesshou.sen	ni	kat-ta.
John	TOP	5o'clock	5minutes	at	final.game	OJCT	win-PAST

John won the final game at 5:05.

The achievement construal, as we can see above, is compatible with a pointlike

adverbial which specifies a point in time as 'at 5: 05' or *totsuzen* 'suddenly' which

construes events as punctual.

Other situation types which typically denote events that are extended over the

t-scale get the inception interpretation with the above adverbials. This interpretation is

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[13] This adverbial is not compatible with unbounded events such as in the directed activity reading, since
the meaning of the adverbial (halfway) presupposes that there is a delimiter (endpoint).

regarded as an achievement construal with the Past construction, since the inception itself is an achievement (d-transition).

[24 Manner of Motion 1]

(102)
?Taro wa totsuzen hashit-ta.
Taro TOP suddenly run-PAST
Taro suddenly ran. (Taro suddenly started to run.)

[26 Motion/Movement]

(103)
Sono kuruma wa totsuzen ugoi-ta.
the car TOP suddenly move-PAST
The car suddenly moved.

[27 Performance]

(104)
?Jacqui wa totsuzen utat-ta.
Jacqui TOP suddenly sing-PAST
Jacqui suddenly sang. (Jacqui suddenly started to sing.)

The achievement construal is also possible if an event as a whole can be construed as having happened in an instant.

[17 Change of Physical Properties]

(105)
Sono kinzoku wa sono saishin gijutsu de shunkanni hie-ta.
that metal TOP that latest technology with in.an.instant cool-PAST
The metal cooled down in an instant with the latest technology.

[21-1 Light Emission]

(106)
Sono dentou wa totsuzen chikachika hikat-ta.
the light TOP suddenly ONMP2 shine-PAST
The light flashed suddenly.

[38 Killing]

(107)
Chichi wa shunkanni shichimenchou o kososhi-ta.
father TOP in.an.instant turkey ACC kill-PAST
Father killed a turkey in an instant.

The third construal with the Past construction is the cyclic achievement reading. This refers to the one-off reading of an event. In contrast to the reduplicated onomatopoeic/mimetic phrase, a non-reduplicated onomatopoeic/mimetic word plus the quotation marker '*to*' is used to reinforce the semelfactive reading. The phrase is assigned ONMP1 in the English gloss as follows:

[21-1 Light Emission]

(108)
Sono dentou wa   chikat-to ichido hikat-ta.
the   light   TOP ONMP1   once   shine-PAST
The light flashed only once.

[21-2 Sound Emission]

(109)
Nezumi ga   ichido chut-to   nai-ta.
mouse   NOM once   ONMP1 cry-PAST
The mouse squeaked once.

[28 Create Mark/Defect]

(110)
Kanojo wa   birit-to   sono tegami o   yabui-ta.
she   TOP ONMP1 the   letter   ACC tear-PAST
She tore the letter.

The fourth construal associated with the Past construction is the runup achievement reading. With a container adverbial, such as *gohun de* 'in five minutes', quite a number of situation types get this construal. In some situation types which denote a prototypically punctual event such as dying, the container adverbial measures the interval up to the d-transition to the result state.

[10 Cognition 1]

(111)
Taro wa   ikkagestsu de sono suushiki o   rikaishi-ta.
Taro TOP one.month in the   formula   ACC understand-PAST
Taro understood the formula in one month (one month later).

[32 Dismantle]

(112)
Sono kodomo wa   juppun   de sono omocha o   kowashi-ta.
the   child   TOP ten.minute in the   toy   ACC destroy-PAST
The child destroyed the toy in ten minutes (ten minutes later).

[35 Dying]

(113)
Chichi wa   hatsubyou kara ichinen de nakunat-ta.
father TOP falling.ill   from one.year in die-PAST
My father died in one year after he fell ill.

In the above examples, the container adverbial measures the interval till Taro's understanding (maybe he made efforts and understood the formula suddenly at the end), till the child's destroying of the toy (maybe he kept on doing something wrong with the toy, and finally destroyed it at the last moment), and till the father's death (he was ill for some time and died in the end).

In other cases, the container adverbial with the Past construction measures the interval up to the inception of the activity, as the following examples illustrate:

[24 Manner of Motion 1]

(114)
?Taro wa   ippun   de hashit-ta.
Taro   TOP one.minute in run-PAST
Taro ran in one minute (one minute later).

[26 Motion/Movement]

(115)
Sono kuruma wa   sanpun   de ugoi-ta.
the   car   TOP three.minute in move-PAST
The car moved in three minutes (three minutes later).

[27 Performance]

(116)
?Jacqui wa   gohun   de utat-ta.
Jacqui   TOP five.minutes in sing-PAST
Jacqui sang in five minutes (five minutes later).

In the above examples, the container adverbial measures the interval till the inception, that is, the time till Taro started running, the time till the car started moving, and the time till Jacqui started singing.

The fifth construal is the undirected activity reading. This construal is made clear and reinforced with the support of a durative adverbial such as *ichijikan no aida* 'for an hour', which specifies a length of time for which an event lasts.

[12 Emotional Activity]

(117)
Haha   wa   nagai aida watashi no   seikou   o   yorokon-da.
mother TOP long period I   GEN success ACC rejoice-PAST
My mother was happy with my success for a long time.

[22-1 Contact]
(118)
Jack wa   Brigitte no   kata   o   ichijikan no   aida   tatai-ta.
Jack TOP Brigitte GEN shoulder ACC one.hour GEN period pat-PAST
Jack patted Brigitte on the shoulder for an hour.

[25 Manner of Motion 2]

(119)
Hanako wa   ichijikan no   aida   oyoi-da.
Hanako TOP one.hour GEN period swim-PAST
Hanako ran for one hour.

[27 Performance]

(120)
Jacqui wa   gohun   no   aida   utat-ta.
Jacqui TOP five.minutes GEN period sing-PAST

Jacqui sang for five minutes.

The sixth construal is the directed activity reading. Like the 3P (accomplishment) construal, it can be modified with *sukoshizutsu* 'little by little' or *masumasu* 'more and more'. However, it does not imply that a certain new state is achieved, unlike in the case of an accomplishment.

[15 Attitudes]

(121)
Kare wa masumasu hinekure-ta.
he TOP more.and.more get.warped-PAST
He got more and more warped.

[16 Change of Weight]

(122)
Mary wa sukoshizutsu hutot-ta.
Mary TOP little.by.little become.fat-PAST
Mary became fat little by little.

[17 Change of Physical Properties]

(123)
Suupu wa sukoshizutsu atatamat-ta.
soup TOP little.by.little get.warm-PAST
The soup got warm little by little.

In the above examples, the subjects only moves up on the scalar property denoted by the verbs but no definite result state is specified.

Some situation types which prototypically denote accomplishment can have the directed activity construal as well. With a durative adverbial, verbs in the examples below can indicate that the subject is engaged in the directed activity with a prospective result state (i.e. accomplishments). However, they do not necessarily entail that the final state is achieved, so the event is construed as directed activity and not as an accomplishment:

[27 Performance]

(124)
Jacqui wa gohun no aida sono shinkyoku o utat-ta.
Jacqui TOP five.minute GEN period the new.song ACC sing-PAST
Jacqui sang Corrs' new song for five minutes.
(She did not necessarily finish the song.)

[29 Consumption]

(125)
Joel wa gohunkan no aida yuushoku o tabe-ta.
Joel TOP five.minutes GEN period supper ACC eat-PAST
Joel ate his supper for five minutes.

(He did not necessarily finish his supper.)

The seventh construal is the transitory state. As the examples below show, this construal can be used with a pointlike adverbial (126), an interval adverbial (127), and a durative adverbial (128). Even without adverbial support, this construal is felicitous (129). The following are examples with the transitory state construal.

[2-1 Existence]

(126)
Gohun   mae wa   soko ni hon   ga   at-ta.
five.minute ago TOP there at book NOM be-PAST
The book was there five minutes ago.

[2-2 Necessity] iru_2 'need'

(127)
Kyonen kare ni-wa   kane   ga it_2-ta.
last.year he   to-TOP money NOM   need/necessary-PAST
He needed money last year.

[3 Social Role]

(128)
John wa   gonenkan   shachou   dat-ta.
John TOP   for.five.years president DA-PAST
John was president for five years.

[5 Bodily States]

(129)
Kare wa   byouki dat-ta.
he   TOP   ill   DA-PAST.
He was ill.

The last construal of the Past construction is uninterpretability. Three classes, Relation 1, Relation 2, and Posture 1, are ungrammatical with the Past tense construction. Here is an example:

[7-1 Relation 2]

(130)
*Benkyou de-wa Joe wa   kanojo no   otouto yori sugure-ta.
study   in-TOP Joe TOP she   GEN brother than excel-PAST
Joe excelled (did better than) her brother in study.

Other four situation types which prototypically denote inherent states (Natural Kinds, Ethnicity, Biological Kind, and Physical Properties) cannot occur with the Past construction unless the referent is interpreted as no longer existing or the construction is used for "a distal perspectival construal" (Croft 2000: 43). This is similar to English:

[1-2Ethnicity]

(131)
Haha   wa   igirisujin dat-ta.
mother TOP English   DA-PAST
My mother was English. (She is not alive now.)

[1-3 Biological Kinds]

(132)
Kinou   mi-ta   mono sore wa   tokage dat-ta.
yesterday see-PAST entity that TOP lizard DA-PAST
The thing I saw yesterday was a lizard.

To summarise, in relation to the Past construction, it is safe to say that the profiled part of the aspectual contour precedes the present moment and the aspectual contour includes an unprofiled state in the present (Croft (2000: 38)) as in the English Past construction.

3.2.3.4. Summary

There follows a table summarising situation types and aspectual classes of Japanese. There are forty-eight situation types, which belong to forty aspectual classes. Situation types which have identical distributional behaviour in the three constructions are grouped together as one aspectual class. The data is not exhaustive and more types and classes will be added in future study. However, for the present purpose of showing different senses of the three TA constructions, the number of situation types and aspectual classes is satisfactory.

Table 4. Japanese situation types and aspectual class

	situation type	example	Present (1)	*Te-iru* (2)	Past (3)
1	Natural Kinds	*daiamondo da* 'be a diamond'	I	*	*
	Ethinicity	*Igirisujin da* 'be English'	I	*	*
	Biological Kinds	*tokage da* 'be a lizard'	I	*	*
	Physical Properties	*se ga takai* 'be tall'	I	*	*
2	Existence	*aru, iru₁* 'be'	ITH	*	T
	Necessity	*iru₂* 'need'	ITH	*	T
	Dispositions	*shinsetsu da* 'be kind'	ITH	*	T
3	Social Role	*shachou da* 'be president'	T	*	T
4	Physical States	*tsumetai* 'be cold'	ITH	*	T
5	Bodily States	*byouki da* 'be ill'	TH	*	T
6	Relation 1	*kotonaru* 'differ'	I	I	*
7	Relation 2	*sugureru* 'excel'	*	I	*
	Posture 1	*sobieru* 'tower'	*	I	*
8	Posture 2	*tatsu* 'stand'	H	THF	VR
9	Perception	*mieru* 'see,be visible'	ITH	TF	VRT
10	Cognition 1	*rikaisuru* 'understand	H	IRHF?	VR
11	Cognition 2	*omou* 'think'	ITH	THF?	VR?
12	Emotional Activity	*yorokobu* 'rejoice, be happy'	H	UF	VU
13	Sleeping	*nemuru* 'sleep'	H	UHF	VRU
14	Perceptual Activity	*miru* 'watch'	H	UDHF	PVR?UD
15	Attitudes	*hinekureru* 'become warped'	IH	DTIHF?	VD
16	Change of Weight	*hutoru* 'become fat'	H	DTIF	PD
17	Change of Physical Properties	*chijimu* 'shrink'	IH	DTF	PVD
18	Blooming	*saku* 'bloom'	IH	TF	PVR?U?
19	Directed Motion	*hairu* 'go into'	H	THF	PVR
20	Open/Close	*hiraku* 'open'	IH	DTHF	PVR?D

21	Light Emission	*hikaru* 'shine'	IH	UHF	VCR?U
	Sound Emission	*naku* 'cry'	IH	UHF	VCR?U
22	Contact	*tataku* 'hit'	H	UHF	VCR?U
	Bodily Motion	*te o huru* 'wave one's hand'	H	UHF	VCR?U
23	Touching	*hureru* 'touch'	H	UTHF	VCR?U
24	Manner of Motion 1	*hashiru* 'run'	IH	UIHF	PV?R?U
25	Manner of Motion 2	*aruku* 'walk'	IH	UHF	PV?R?U
26	Motion/Movement	*ugoku* 'move'	IH	UDTF	VRUD
27	Performance	*odoru* 'dance'	IH	UDHF	PV?R?UD
28	Create Mark/Defect	*hikkaku* 'scratch'	IH	UDHF	VCR?U
29	Consumption	*taberu* 'eat'	IH	DHF	PV?D
30	Covering	*oou* 'cover'	H	DTIHF	PVR?D
31	Creation	*tsukuru* 'make'	IH	DHF	PD
32	Dismantle	*torikowasu* 'dismantle'	IH	DHF	PVRD
33	Dyeing and Shaving	*kami o someru* 'dye one's hair'	IH	DTHF	PV?D
34	Dressing	*kiru* 'dress'	IH	TRHF	VR
35	Dying	*shinu* 'die'	*	IF	VR
36	Fracture/Breaking (intra)	*wareru* 'break'	I	IF	VR
37	Attachment	*kuttsuku* 'stick'	IH	TF	VR
38	Killing	*korosu* 'kill'	IH	RF	VR
39	Winning	*katsu* 'win'	H	RHF	VR
40	Discovery	*hakkensuru* 'discover'	*	F	VR

For convenience only, the left column of the table shows the number of aspectual classes. The second column lists all the situation types discussed in this chapter. Sometimes one situation type relates to two types of aspectual behaviour. In this circumstance, the situation type is subdivided into 1 and 2 (as with Posture 1 and Posture 2). The third column gives a typical example of that Japanese situation type or subtype and its English translation. Then, the following three columns indicate the aspectual sense each situation type gets with the constructions using alphabetical codes I used in the previous discussion; the order of the columns is the Present (1), the *Te-iru* (2), and the Past (3) constructions. Question marks as in "R?" indicate that the construal in question is not perfectly natural but acceptable.

Though cutting across these situation types into a more general types of aspectual classes is not easy (as there are forty), I try to put the situation types in a relatively understandable order in terms of aspectual behaviour. At least, I put the types which have similar aspectual properties close together in the list. I start with "inherent state" types (prototypically type 1 of aspectual class), then proceed to "transitory state" types (types 2 to 5). Types 6 to 7 are inherent state but I position them as the last of the "state" types as they are peculiar in that *te-iru* refers to inherent state. The positioning of type 6 illustrates its "in between" status; it is similar to type 1 in that it refers to inherent state in the Present but also similar to type 7 in that it also refers to inherent state with *te-iru*.

Then, types 8 to 14 are ambiguous in interpretation between "state" and "activity" with *te-iru*. They are situation types of inactive action (posture and sleeping), cognition, perception, and emotion. Because of the semantic nature of these verbs, it is difficult to see if a certain situation denoted by them is a state or activity. For example, somebody's standing on the hill may be construed as the transitory state of the person after his standing up or may be construed as the invisible activity of the person's holding standing position. What is shared by these situation types is an action that is invisible. I actually distinguish types 8, 9, 10 and 11 as being closer to "state" with *te-iru* and types 12, 13, and 14 as being closer to "activity". I use two criteria to assign them to activity; (i) whether the *Te-iru* construction can be used as an answer to the question *What is "one" doing?* and (ii) whether they are compatible with adverbials such as *shizukani* 'quietly' that modifies the manner of action. However, in this respect, Posture 2 satisfies the condition (ii). This is a good example to show the fuzzy boundaries that exist between larger aspectual types such as "states" or "activities". Only a type that satisfies the two tests has been classified as an activity.

Types 15 to 20 are "roughly" intransitive change of state verbs. (Type 20 can be used transitively as well.) Again, the classification can not be so clear-cut. Other than types 18 and 19, they have a directed activity construal with *te-iru*. That is, the change of state can be construed as extending over time. Types 18 and 19 are closer to "achievement" types (compare them with Types 34 to 40) in that they do not have any activity in progress reading (specifically, 2U and 2D) with *te-iru*. However, they can get the accomplishment reading with a container adverbial in the Past, so they are not prototypically achievements.

Types 21, 22, and 23 are verbs that can denote cyclic achievement. Basically, they all have the one-off achievement reading in the Past (3C) and the undirected activity reading with iterated achievements with *te-iru* (2U).

Types 24 to 33 form the continuum between "activity" and "accomplishment". Type 24 and 25 (Manner of Motion), allowing the undirected activity construal but not the directed activity construal with *te-iru*, are prototypical "activity" verbs. Types 26, 27, and 28 have fuzzy boundaries as they may either get an undirected or directed activity construal depending on other factors, namely, on whether an event can be bounded with a direct object or a goal phrase. Types 29 to 33 are basically accomplishment types as they get the accomplishment construal in the Past and also the directed activity reading (not the undirected one) with *te-iru*. It is also worthy of note that types 26, 30 and 33 can also have "achievement" characteristics in that they will get the resultative state reading (transitory state) with *te-iru*. That is, we can either focus on the activity part or the result part after the action of the "accomplishment" situation types denoted by these verbs.

Types 34 to 40 are "achievement" types. However, again, the boundaries are not so clear. Type 34 is quite peculiar in that it gets both the resultative state reading

(specifically, the transitory state reading) and the activity in progress reading (specifically, the runup achievement reading) with the *Te-iru* construction. Actually, type 34 is similar to type 33 in that both have a reflexive reading; the agent causes changes to him/herself (e.g. by dyeing his/her own hair and dressing him/herself). The only difference is that type 34 Dressing does not denote situations that have intermediate/incremental stages. Other achievement type verbs (types 35 to 40) either get the resultative reading (transitory state or inherent state) or the runup achievement reading, or only the retrospective reading with *te-iru*. They all take achievement (3V) and runup achievement reading (3R) in the Past, which is characteristic of the achievements verbs.

Not only are there fuzzy boundaries between the general aspectual types, but also some aspectual classes which are distant in the table share similar aspectual properties. For example, type 10 Cognition 1, and type 39 Winning, are different only due to the presence of 2I construal in the former Type. Other aspectual behaviours are identical (1H, 2H, 2R, 2F, 3V and 3R). Also, type 13 Sleeping, and types 21, 22, and 23 are similar in that they all have 1H, 2U, 2H, 2F, 3V, 3U,and 3R construals. Type 8 Posture 2, and type 19 Directed Motion, are also similar in allowing 1H, 2T, 2H, 2F, 3V, and 3R construals. Type 14 Perceptual Activity has prototypical characteristics of accomplishment as in type 32 or 33 in allowing 2D, 3P and 3D construals.

Thus, there are quite a few aspectual classes and they cannot easily be categorised into general larger types of state, achievement, activity, or accomplishment. These aspectual classes form a continnum of general aspectual types with some of their aspectual characteristics belonging to one general aspectual type and others belonging to another general aspectual type.

Analysis of these complicated aspectual classes and types will continue with the

elaboration of semantic maps proposed by Croft (2000), where the meanings of constructions and distribution classes (in this case aspectual types) are organised into a conceptual space. In such maps, categories which have similar distributional patterns will occupy connected regions. However, I leave this subject for future research.

3.3. Summary

This chapter introduced Croft's (2000) two-dimensional representation for aspect, which is the other semantic dimension of verbal semantics following the causal structure discussed in Chapter 2. It also saw that there are more aspectual types than those indicated by Vendler's (1967). Then, it showed how Japanese predicates can be categorised into aspectual classes in terms of their distributional behaviour with three constructions: the Present, the *Te-iru*, and the Past constructions. At the same time, it illustrated that the three constructions have several aspectual construals.

The next chapter will discuss how the causal structure representation and the aspectual representation will be combined into verbal semantic representation and then Chapter 5 and Chapter 6 will analyse verbs of putting and removing using the new causal-aspectual representational model.

4. ANALYSIS AND METHOD

The purpose of this chapter is to introduce the causal-aspectual model on which the analysis of verbs of putting and removing is based and to explain the methodology of collecting the data of these verbs. Section 1 of this chapter gives a background to the relation between the verbal scale/holistic theme and argument linking. Section 2 introduces and describes Croft's (1999a) new version of argument linking theory, which combines his causal structure analysis with the aspectual representation. I shall examine how it works citing his geometrical representations for some English verbs. Section 3, then, gives details on methodology, describing how the data presented in this thesis has been collected and how it was examined. Section 4 provides some necessary information on Japanese grammar and Section 5 briefly summarises and leads into the subsequent chapters.

4.1. Incremental theme/verbal scale and the argument linking

The correlation between verbal scale and argument selection is discussed by Dowty (1991) and Tenny (1992). Verbal scale is roughly equivalent to incremental theme in Dowty and to measuring out in Tenny.

Dowty introduces the notion of incremental theme in his subject/object argument selection theory. He proposes a set of entailments for Proto-agent and Proto-patient. There are five properties for each (Dowty (1991: 572)), and an argument which has more properties as Proto-agent is realised as subject and one which has more properties as Proto-patient is realised as direct object. An incremental theme is one of the properties of the Proto-patient. He accounts for the *spray/load* alternation, which concerns direct object/oblique selection, by the very property of incremental theme. In

brief, Dowty argues that the direct object is always the incremental theme in the two variants. The following examples cited from Dowty (1991: 591-592) support his argument:

(1a) John sprayed <u>this wall</u> with paint in an hour.   (telic)
(1b) (#)John sprayed <u>this wall</u> with paint for an hour. ((#)atelic)
(1c) #John sprayed <u>paint</u> onto this wall in an hour.   (#telic)
(1d) John sprayed <u>paint</u> onto this wall for an hour.   (atelic)

(2a) #John sprayed <u>subway cars</u> with this can of paint in an hour.   (#telic)
(2b) John sprayed <u>subway cars</u> with this can of paint for an hour.   (atelic)
(2c) John sprayed <u>this (whole) can of paint</u> onto subway cars in an hour.   (telic)
(2d) #John sprayed <u>this (whole) can of paint</u> onto subway cars for an hour. (#atelic)

As we can see, it is the direct object and not the other arguments that affects the aspectual meaning of the whole sentence. In (1), when the direct object is bounded (*this wall*), the telic reading is natural, while the atelic reading is more natural when the direct object is a mass noun and thus nonbounded (*paint*). The same is true of (2); *subway cars* are nonbounded, thus the whole event is interpreted as atelic, while the bounded status of the direct object (*this can of paint*) also delimits the event. That is, Dowty claims that the two variants of the *spray/load* alternation should be lexically distinct but related, emphasising that there is an aspectual difference between the two, which is reduced to the incrementality of the direct object.

Tenny (1992) argues for a stronger claim which directly relates the argument that measures out the event to the direct object in her Aspect Interface Hypothesis. She also gives examples of the locative alternation to support her hypothesis. One of the supporting facts is that both the instrument role and the material role can appear in the oblique position in the *with*-variant of *spray*, but only the latter is possible in the direct object position in the locative variant. The following examples are from Tenny (1992: 15-16):

(3a) spray the wall with <u>water</u> (material as oblique)
(3b) spray the wall with a <u>hose</u> (instrument as oblique)

(4a)   spray <u>water</u> on the wall (material as direct object)

(4b)   *spray <u>a hose</u> on the wall (*instrument as direct object)

Tenny's explanation of the difference in grammaticality of (4a) and (4b) is that material such as water can be moved to the wall little by little until it is gone, so the event can be measured out while an instrument such as a hose cannot be construed as moving it part by part. The instrument is not a measuring-out-argument and cannot appear in the direct object position.

Dowty (1991) opposes Tenny's hypothesis, which relates incremental theme 'exclusively' to the direct object position, arguing that the path but not the direct object is an incremental theme in verbs of motion plus a goal phrase (*push the cart to New York*) and that there are cases of an incremental theme subject crossing a boundary (*John entered the icy water very slowly*). However, as we have seen above, Tenny (1992) and Dowty (1991) treat the locative alternation in a similar way with the direct object in each variant interpreted as the incremental theme.

Unlike Tenny and Dowty, Jackendoff (1996) admits little correlation between the direct object and incremental themehood. One of his main arguments about the lack of correlation between the incremental theme and the argument selection is that aspectual properties are not necessarily entailed in the lexical entry of verbs, as Tenny claims and Dowty implies. Jackendoff points out that the direct object, which is supposed to be the incremental theme, does not always measure out the event, and that pragmatic factors interact with the locative alternation of *spray/load* verbs. First of all, he claims that the holistic interpretation, which is associated with the *with*-variant, is favoured but not required (especially with content-oriented verbs like *spray* or *splash*). He gives an example that the *with* variant can be atelic: *Bill sprayed/smeared/dabbed/splashed the wall with paint (for ten minutes), but it still wasn't covered* (Jackendoff 1996: 346). Secondly, he argues that *spray/load* verbs have alternative aspectual construals

(accomplishment or achievement). It is pointed out that one can load a truck with many successive shovelfuls (accomplishment) or with one scoop of a steam shovel (achievement) for *load*, and that one can spray the wall with paint successively, covering different areas bit by bit (accomplishment) or spray one's shoes with water in a single burst (achievement) with *spray*. Thus, Jackendoff emphasises that incrementality is not entailed as a part of the LCS of *spray/load* verbs, since the incrementality or non-incrementality of the direct objects does not affect the argument structures of these verbs. Rather, incrementality is an extraneous pragmatic factor. For the *spray/load* alternation, he does not give any representation but only suggests that two independent factors are involved in favouring the holistic interpretation; (i) container-oriented verbs (*load* or *pack*) have a bias toward the holistic reading, while content-oriented verbs (*spray* or *splash*) are more neutral[1], and (ii) the *with*-variant creates a bias toward the holistic reading, while the locative variant is more neutral. As a result, *load the truck with dirt* (two factors involved) heavily favours the holistic reading while *spray paint on the wall* (no factors involved) is neutral.

To summarise Jackendoff's idea, certain cases (*spray/load* verbs) of telicity and the measuring out phenomenon result from the interaction of lexical semantics and pragmatics. In particular, these verbs should not be regarded as measuring out verbs. Therefore, he admits that there is little correlation between measuring out and argument selection.

I agree that verbs have different aspectual construals and they normally do not

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[1] A similar claim is made by Dowty (1991: 590-592). He ascribes subtle differences to *spray* and *load* concerning the interaction of the telicity of the theme or direct object and that of the event as a whole to pragmatic factors. First of all, spraying the wall and loading the hay are different in purpose; the former is normally to cover the wall and the latter is normally to move the theme around. Secondly, one can put paint on the wall indefinitely by putting paint repeatedly on the same place (atelic event), while one cannot put hay onto the truck indefinitely (telic event) as the truck has a spatial limit.

belong exclusively to one aspectual class. Most verbs have different aspectual construals of situations. In Chapter 3, we saw that there can be different aspectual construals of the same event. However, my belief is that it is still useful to a certain extent to classify each verb according to the most common construal. It should be noted that when there is more than one representation/construal possible for each verb or predicate, cognitive linguistics does not differentiate which is basic and which is derived. It only admits that one is more common and one is less common. For *spray* and *load* verbs, the bit-by-bit spraying/loading, which is represented as an accomplishment (with a verbal scale), is more common than the instantaneous version that is represented as an achievement (with a trivial verbal scale). We can say that the incremental theme in the common context is construed as a trivial verbal scale in the less common context, in which case it is possible to maintain the idea that the aspectual property of the incremental theme/verbal scale" has something to do with that of the event.

We should distinguish the verbs mentioned above from typical achievement verbs. In the former, the accomplishment construal is more common than the achievement construal while in the latter the achievement construal is more common than the accomplishment construal. Let us take typical achievement verbs like *break* in *break the glass*. Even though we think of a situation where a very precise camera catches a snapshot-like moments of the breaking the glass, we still cannot say the glass half broke. They are real achievements and their theme cannot be construed as a non-derived incremental theme. Most achievement verbs can only have a runup achievement reading. At least, we can distinguish the following types of verbs; (i) verbs that have an accomplishment reading as the common one and an achievement reading as a more special construal, (ii) verbs that have an achievement reading as the

common one and a runup achievement as a less common construal, (iii) and real achievement type verbs such as *shinu* 'die' in Japanese, which does not allow the accomplishment reading nor the runup achievement reading.

Another point is that incrementality is still valid and necessary to distinguish the two variants of the *spray/load* alternation, at least. In cognitive linguistics, we assume that different forms have different meanings (even subtly different ones). Therefore, if there is more than one syntactic realisation of a single verb with the same participants, we need to explore how they have differences in meanings as well. Actually, Jackendoff (1996) himself agrees that the *with*-variant has a bias towards a holistic interpretation. If the notion of incrementality can differentiate the two variants, it is worth symbolising this in a formal representation of construals of situations, even though we do not regard it as the determinant factor for argument selection as Tenny argues. That is, the approach taken here is similar to Dowty's, which claims a partial correlation between the argument structure and aspectual properties. In short, what the two theoretical points of view above suggest is that we seek to generalise and classify verbs as much as possible according to their possible (common and uncommon) construals (including aspectual and causal ones) and the argument linking patterns, and to differentiate different argument linking patterns in a proper representational model while admitting the influence of pragmatic factors on the construal of situations. The next section explains the formalism of Croft's new representational models.

4.2. The Integration of aspect and causal structure—Croft's (2000) new version

4.2.1. Notation

Croft (1999a, 2000) has developed a new model of event representation by integrating the causal structure described in Chapter 2 and the aspectual structure described in Chapter 3 as two important dimensions of verbal semantics which are independent but related. His main hypothesis is that argument linking is derivable from force-dynamic (causal) structure and not from aspectual structure (Croft 2000: 55). However, aspectual structure and causal structure are related to a certain extent, as we saw in the previous section.

First of all, I shall introduce the basic notation of his representation with some examples. **(i) The new representation involves an aspectual contour for each participant in an event**. All participants in the event, which have their own aspectual contour, are conventionally positioned from bottom upward according to the direction of the transmission of force.[2] Those which are positioned more forward in the causal analysis come lower in the integrated representation. The following are examples for the prototypical transitive events of *Jack broke the vase* (punctual event) and *Jack ate the lasagne* (extended causation with holistic theme)[3]:

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[2] Croft (2000, §3.3) argues for a three-dimensional representation for causal and aspectual structure, where each participant belongs to its own t/Δ scale, which is represented as a two-dimensional, and with the causal relations being specified by the third dimension. However, for the sake of convenience in order to represent it on paper, it is presented as a 2D model, where the participants are piled up vertically along the Δ dimension, as most of the discussion in this thesis can be well illustrated with the 2D model.

[3] Figure 1 is cited from Croft (2000: 57, Figure 3) and Figure 2 is from Croft (2000: 59, Figure 4).

Figure 1. causal-aspectual representation for Jack broke the vase

(5)   Jack broke the vase.
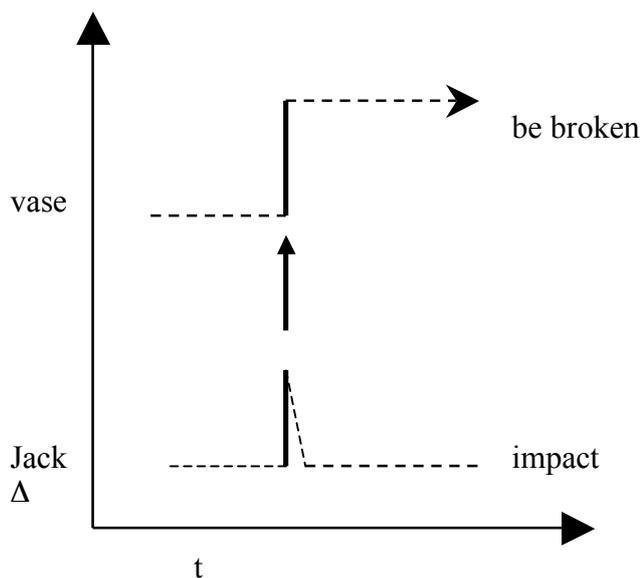
Figure 2. causal-aspectual representation for Jack ate the lasagne

(6)   Jack ate the lasagne.
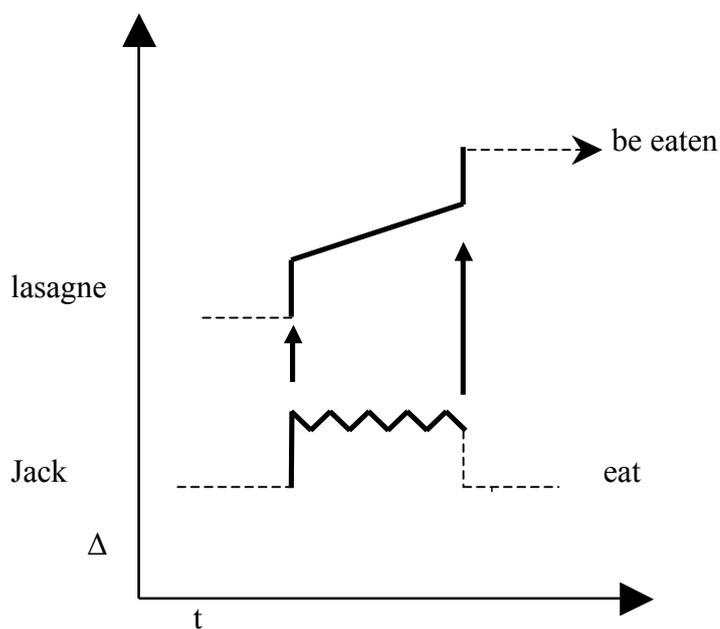
As we can see in the above Figures, **(ii) the names of participants are presented to the left of the contour and the kinds of action they undergo or the state in which they are is named to the right of the contour. (iii) the verbal profile is represented by solid black lines while unprofiled parts of situations are represented as broken**

lines. **(iv) Vertical arrows represent force-dynamic relationships.** Breaking a vase is the punctual causation where the application of force is spontaneous and holds at only a point in time[4]. A single arrow symbolises punctual causation as in Figure 1. Eating the lasagne is the extended causation which involves continuous application of force over time (Croft 2000: 65). Two arrows symbolise and bind extended causation as in Figure 2.

Figure 1 illustrates the fact that Jack's act on the vase is punctual in Jack's aspectual contour (the bottom contour)[5]. The upper aspectual contour for the vase specifies the immediate change of state of vase from not being broken to being broken. Figure 2 represents the fact that Jack is in the activity of eating, which causes the lasagne to undergo the gradual change of being consumed. The two solid arrows specify that Jack's eating continued during a whole process from the beginning to the end of the lasagne being consumed. The incrementality/verbal scale is illustrated by a slanted line (directed activity) and vertical lines represent boundary (§ 3) and the representation captures the accomplishment construal of the event. Jack is construed as undergoing an undirected activity of eating. Its inception is profiled as it triggers the accomplishment subevent of the lasagne. The termination is not profiled as it does

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[4] In the causal-aspectual analysis, we distinguish punctual causation and extended causation as above. Talmy constrasts extended causation with onset causation. Croft (2000: 65) argues that onset causation should be analysed as punctual causation by showing the example of ballistic motion such as *kick the ball across the field*. In Talmy's (1988) sense, it is the onset causation where the initiator transmits force only at the beginning, and the acted on entity will move or change state before the end of the event. However, all the three interpretations of the progressive form (Jack was kicking the ball across the field) indicate that the event is an achievement (See Croft 2000:98-102, §4.5). Croft argues that 'there are only two types of causation from an aspectual point of view, punctual causation and extended causation'. Therefore, we use the term punctual causation to cover onset causation.

[5] Because of the difficulty in representing it using the wordprocessor, the reversed transition cannot be represented as a pure vertical line. Instead, the line is slightly inclined. I request readers to regard it as a vertical line (hence punctual).

not cause the completion of the accomplishment (for details, see Croft 2000: 60). The termination and the rest state are the implied frame as the activity has to terminate when the lasagne is eaten completely. We treat this contour as being reconstrued and extended from a single change of state, like the one for vase in Figure 1. As a result, the lasagne undergoes change of state twice (inception and completion) since it has two vertical lines in its aspectual contour.

Now we see how the non-causal relation is represented in the new analysis. The following is a representation of a typical state of location with *be* (Croft 2000: 76, Figure 1):

Figure 3. causal-aspectual representation for The ball is in the house.

(7)   The ball is in the house. (basic noncausal spatial predication)
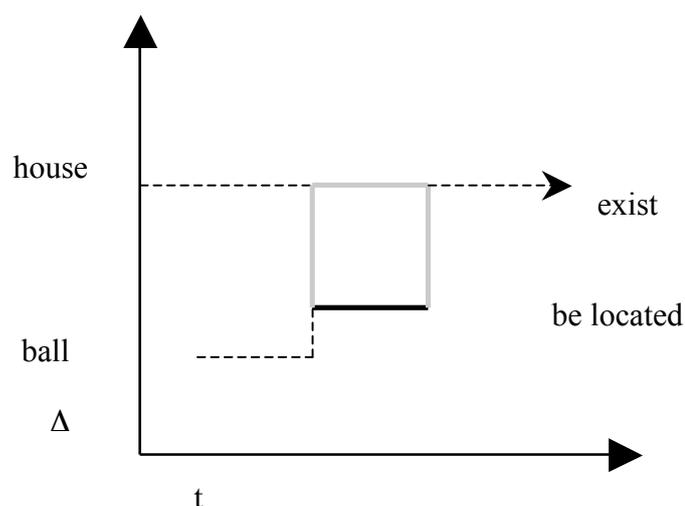
(v) Solid grey segments represent the complement (preposition) profile[6]. In the example, the grey segment represents parts of the event that the prepositional phrase, *in the house*, profiles while the solid black line segment is the state of the ball and is profiled by the verb. **(vi) Conventionally, a vertical line represents the non-force-dynamic relationships between the two participants. Two vertical lines**

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[6] However, Croft (2000) uses dotted lines for the prepositional profile.

symbolise the extended non-force-dynamic relationships between the two. The non-force-dynamic relation between *house* and *ball* in the example is symbolised by the two grey vertical lines to indicate that the state is maintained for a certain period of time. In the example, the ground is construed as a mere existing reference point (inherent state) with which the figure has a spatial relation. In turn, the contour of the figure is represented as a transitory state.

Another important facet of the causal-aspectual representation is the identification of a subevent that each participant is associated with in the situation. Croft (2000: 58) sets general rules for labelling subevents:

Extended processes are generally named by the process
Directed achievements are generally named by the resulting state

Moreover, he mentions that certain subevent types will recur. However, he does not admit the existence of a small finite number of subevent types, but argues that subevents are defined by the real-world situation, which is conceptually quite rich. In some cases, a subevent label is described as identical to that of the whole situation description. For example, Jack's subevent in *Jack ate the lasagne* is represented as "eat", which is the same as the overall situation. Croft (2000: 58) assumes that the subevent description is derived from the overall situation type in these cases.

Finally, concerning the causal representation, there is the following constraint on the causal structure of situations that are expressed by verbs (Croft 2000: 58).

Nonbranching Causal Chain: the semantic structure of verbs construes the encoded situation as a nonbranching causal chain

4.2.2. Verbal scale and related principles

Some of the more complicated examples are verbs of motion and *spray/load* alternating verbs. The latter is important because the Japanese verbs discussed in this thesis will include the equivalent of the *spray/load* alternation. The notion of verbal

scale/holistic theme is important with these verbs. Therefore, before looking at the more complicated examples in the causal-aspectual analysis, I shall move on to discuss verbal scale and the principles of the analysis in Croft (2000).

4.2.2.1. Verbal scale and holistic theme

In Chapter 3, I introduced the notion of verbal scale, which is a measurable scale of some property included as the lexical meaning of the verb. The holistic theme is the argument of the verb which possesses that relevant measurable property. For example, the measurable property is ripeness in *The fruits ripened* and the holistic theme is the fruits. In the example of *John ate the lasagne*, the incremental eating of the lasagne is a verbal scale and the holistic theme is lasagne. In *The cart rolled to NY*, the path the cart travels is the verbal scale and the cart is the holistic theme. A verbal scale can also be trivial as in *Jack ate a handful of peanuts in one gulp*. In this example, verbal scale and therefore holistic theme are reconstrued as one without any internal/incremental aspectual changes. The above examples are cases where situations are bounded, but the verbal scale and holistic theme can be unbounded as in *Jack ate pizzas*, where there is no endpoint in the relevant measurable scale because of the bare plural form of the holistic theme.

4.2.2.2. Governing principles

Concerning the relations between the verbal scale, the situation being construed, and the verbal profile, Croft (2000: 60) proposes three principles as follows.

> *Verbal Scale Construal*: if there is a verbal scale in one of the subevents of a complex situation, then the overall aspectual type of the situation is determined by the verbal scale.

> *Verbal Scale Uniqueness*: there is only one verbal scale/holistic theme per situation encoded by a clause.

Verbal Scale Profiling: the verbal scale/holistic theme contour is always part of the verbal profile.

As a piece of evidence for the verbal scale construal principle, Croft (2000: 60) argues that in *Jack ate the lasagne* (as in Figure 2), the contour of the holistic theme (the lasagne) has more of the time interval of the situation than the agent's contour. The next two principles, Croft says, appear to hold for English in his analysis. I shall give further examples of his English examples based on these principles.

4.2.3. More examples with path

This section examines how the path which expresses a spatial relation between the figure and the ground is represented in the causal-aspectual representations. The previous example of Figure 3 which illustrates the basic noncausal spatial relation includes the path (the non-causal relation between the figure the ball and the ground the house) which is linked by undirected vertical lines. Now we shall observe other examples.

4.2.3.1. Verbs of motion

As is well known, English has two types of verbs of motion, those of manner of motion and those of directed motion (cf. Croft 2000, § 4.1). The former are exemplified *by The bottle floated in the water* and the latter are exemplified by *She entered the room*. The following is an example of the intransitive verb of motion *float* (Croft 2000: 77, Figure 2).

Figure 4. the causal-aspectual representation for manner of motion

(8)   The bottle floated in the water. (manner of motion verb)
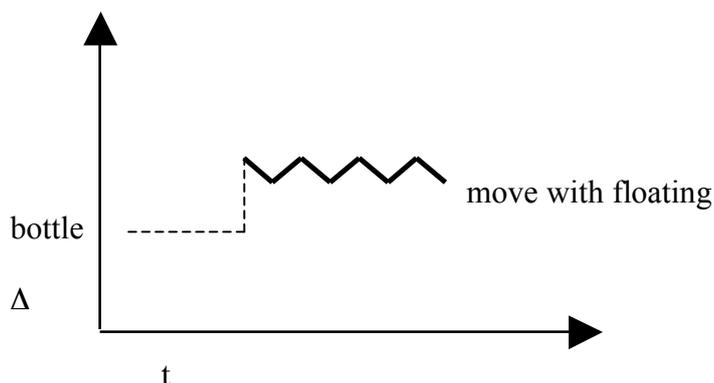
Without a directed preposition, the verb only specifies that the bottle was in the activity of floating without any specified direction. The bottle can be interpreted as floating around in the same spot.) Let us compare it with the following example, which includes a manner of motion that describes directed motion (Croft 2000: 78, Figure 3).

Figure 5. the causal-aspectual representation for directed manner of motion

(9)   The bottle floated into the cave.
        (directed motion verb from manner of motion verb)
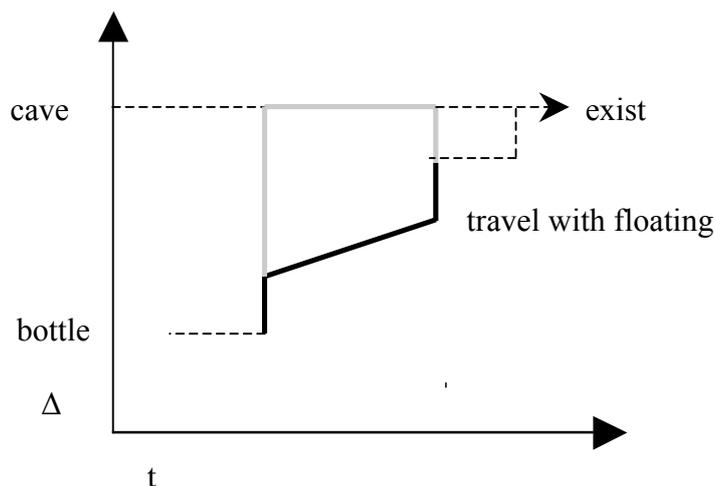
Goldberg (1995) calls this construction an intransitive motion construction (inherited by the subpart inheritance from the caused-motion construction), Rappaport Hovav et

al. (1999) include it in the Bare XP pattern of the resultative construction, and Jackendoff (1990) subsumes it under the resultative construction.

The prepositional phrase added to the manner of motion verb profiles the grey segment above; that is, it profiles an extensive non-force-dynamic relation between the ground and the figure. What is unique to Croft's approach is that the PP expresses the relationship between the figure and the ground. The bottle is the holistic theme which travels the path, which is the verbal scale, and its motion determines how far the event in question is achieved.

Croft (2000: 80) argues for the appropriateness of the analysis of Figure 4 and Figure 5 stating that the motion of the figure causes the figure to travel; the manner of motion (floating in the example above caused the directed motion) is included in the subevent of the motion.

The analysis has another descriptive advantage. Verbs of sound emission such as *rumble* can also be used in the caused-motion construction (*The car rumbled down the hill/into the driveway*.) It is not the rumbling sound that causes the car to move down the hill but the motion of the car that causes the rumbling sound. Rappaport Hovav et al. (1999: 39) argue that this should get the non-causative analysis and is best paraphrased as *The car went down the hill, rumbling*. This sentence can be analysed in Croft (2000: 150) in the same way as the above floating example (*The bottle floated into the cave*). The path expression that denotes the non-causal relation between the figure and the ground is represented by the grey lines and the profile of the holistic theme. The new representation does not specify that the subevent of manner of motion causes the motion or vice versa. As we can see, the descriptive label for the subject in the example, the aspectual contour has two different descriptions of "*move* with *floating*" in the floating example. The two actions which are conflated as one

aspectual contour cause the change of location of the subject at the end. This representation analyses the caused-motion construction of verbs of sound emission in the same way as verbs of motion. In *The car rumbled down the hill*, the event representation is similar to that of Figure 5 and the car will be analysed as having the descriptive label "*move with rumbling*". Likewise, these two actions are conflated and together cause the final change of location. Thus, the new analysis represent verbs of manner of motion and those of sound emission in the caused-motion construction in the same way, reflecting their similarities in syntactic realisation. Moreover, it predicts and allows the paraphrases like *The bottle moved into the cave, floating* and *The car moved down the hill, rumbling*.

The transitive "derived" directed motion verbs such as *Jack pushed the cart into the house* is represented in a similar way. *Push* itself does not necessarily entail the change of position of the direct object. Because of the PP, the spatial relation between the direct object (the figure) and the oblique referent (the ground) becomes clear and apparent in the event structure representation. The following is the causal-aspectual representation of the sentence:

Figure 6. the causal-aspectual representation of push *with directed motion*

(10)   Jack pushed the cart into the house. (Croft 2000: 91-92):
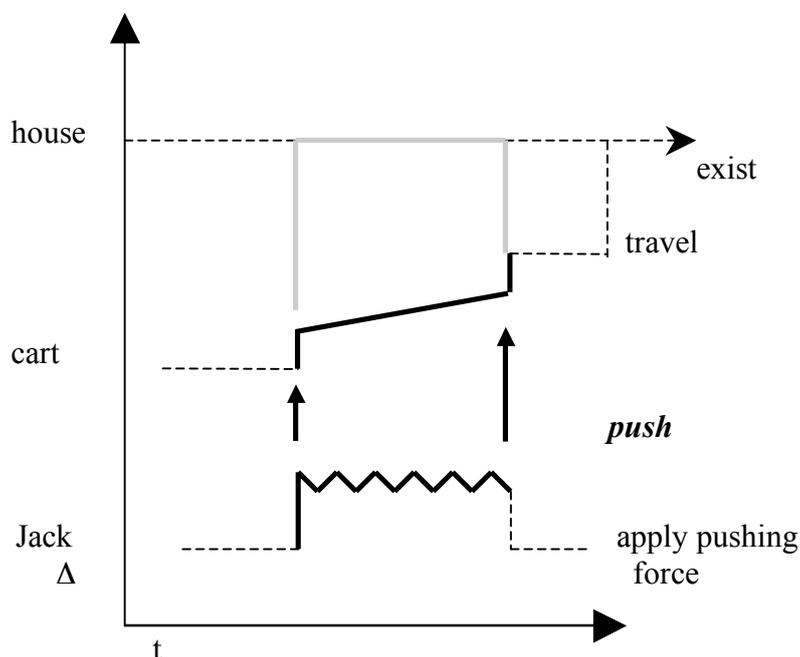
Croft's analysis is consistent between the intransitive version and the transitive version in that the only difference in the latter is that it adds the agent contour to the representation of the former. The cart travels the path, which is the verbal scale. The agent's continuing to apply force is represented as extended causation bound by the two arrows.

4.2.3.2. *Spray/load* verbs

Now we shall examine how the alternation of *spray/load* verbs can be represented in the new causal-aspectual analysis. Croft (2000: 82-86) calls the locative variant the Path construction and the *with* variant the *With* construction. The revised version of the event representation of *spray/load* verbs follows (Croft 2000: 82-86):

Figure 7. Application verbs in the Path construction

(11a)   Jack sprayed the paint on the wall.
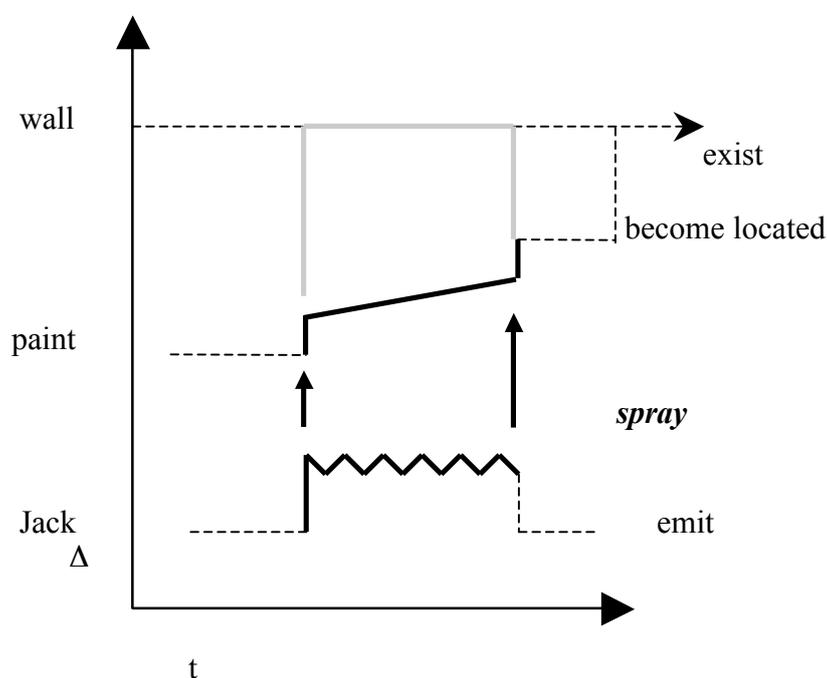
Figure 7 is similar to that of the caused-directed motion verb with a PP complement in *Jack pushed the cart into the house*, where the verbal scale is the path travelled by the cart. The paint is represented as the holistic theme as the verbal scale measures "how much paint has ended up on the wall." However, the labelling of the holistic theme is slightly different from that of directed motion verbs. What is measured here is not how far the paint has travelled as we cannot imagine that the paint is halfway between the wall and the spray can. Rather, the measurable property is how much paint is located on the wall, so the subevent that the paint undergoes is described as "become located" rather than "travel". To summarise, the situation is construed as locating paint on the wall in the Path construction.

On the other hand, in the *With* cosntruction, the situation is construed as the event of covering the ground, as the following example illustrates.

Figure 8. Application verbs in the With *construction*

(11b)   Jack sprayed the wall with the paint.
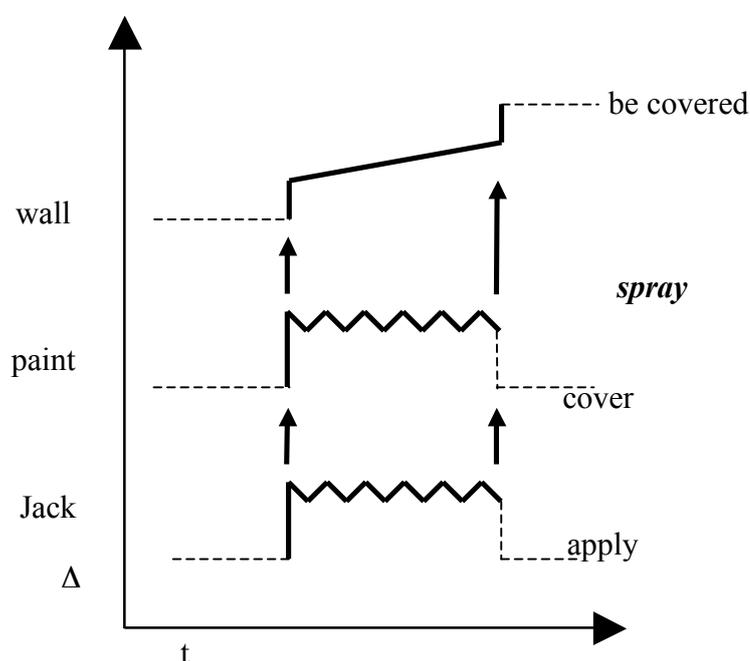
The verbal scale measures how much of the wall is covered with the paint. The verbal scale is the surface of the wall that is covered by the paint, but the wall itself is close enough to be identified with its surface. Therefore, the wall is represented as the holistic theme here. The two Figures 7-8 above are similar in terms of the order of the participants, but with a few differences. The major difference in the verbs' profiles basically captures the aspectual difference between the two variants. That is, we maintain the approach of the first version discussed in Chapter 2, which assigns a different verbal profile to the two constructions.

It should also be noted that **the labels of the events each participant undergoes are quite different between the two variants**. This, with the other differences, results in two distinct conceptualisations of the event: one variant captures it as the paint moving to the location (as an emission verb plus a locative complement) and the other captures it as the location being covered (as a covering verb plus an instrument).

The holistic interpretation of the *with* variant is well illustrated by the status of the location as the holistic theme.

4.2.4. Summary

The new representation solves three problems with Croft's earlier model. First of all, the earlier model represents the causal and aspectual structure of situations together without differentiating the two; it indicated the aspectual relation (processes) such as the state or change of state as well as the force-dynamic relationship. Because of this, we needed to represent the same participant repeatedly in parenthesis when it was involved in more than one segment of the causal chain, which also made it difficult to specify to what extent the parts of the causal chain should be profiled. Moreover, events could not be given the finer-grained aspectual analysis. That is, the distinction could not be made between a transitory state and an inherent state or an achievement and an accomplishment. Secondly, the causal structure representation of the ealier model did not capture the causal relation between multiple events, though it did represent the causal or non-causal relations between participants. The new representation can capture both the causal structure of an event causing another event and that of a participant acting on another participant. Thirdly, the earlier representation did not have any formal notation to represent a verbal scale/holistic theme while the new one does.

Thus, in Croft's new model, aspectual status is also presented formally and in a fine-grained way. In particular, the notion of incremental theme is formalised. However, his basic approach to argument realisation is maintained. That is, (i) a single verb appearing in a different syntactic realisation is attributed to verbal polysemy (though it is not necessary to be systematic). (ii) He uses a model of force-dynamic

relationship and the convention of profiling.

4.3. Methodology—data collection and analysis

This thesis analyses two main classes of Japanese three-argument verbs, verbs of putting and verbs of removing, following the semantic classification of equivalent English verbs in Levin (1993). The verbs require the agent, the figure and the ground as arguments[7]. The procedure of collecting and analysing the data consisted of six stages as follows; (1) selection, (2) searching for translation, (3) confirming and screening, (4) looking for more members, (5) investigating syntactic behaviours and patterns, and (6) subcategorising into smaller semantic classes. These will now be explained in turn.

4.3.1. Selection

First of all, reference was made to the English verbs presented in each of the classes in Levin's *English verb classes and alternations* (1993) and, in particular, to Section 9 for verbs of putting and Section 10 for verbs of removing.

Levin's above-mentioned semantic classes also contain non-three-argument verbs such as *pocket* verbs (verbs of putting) and *debone* verbs (verbs of removing). The following are examples:

(12)   Lydia pocketed the change.
       (i.e., Lydia put the change in her pocket.)   (Levin 1993: 121)

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[7] It should be recalled that the agent typically is a person who exerts force and carries out an action to cause a change in another entity. Even though no changes happen, at least, it transmits the energy to another entity. The figure is a part which is seen to stand out from the other parts (ground), which is a setting, in cognitive linguistic terms where people perceive or recognise a scene (Langacker 1987: 120-122). In the discussion of verbs of putting and removing, the figure can be regarded as equivalent to the theme or locatum, and the ground to the locational goal or source.

(13)   The cook deboned the fish.
        (i.e., The cook removed the bones from the fish.) (Levin 1993: 131)

Even though three participants are actually involved in the semantic frame, these verbs manifest only two arguments syntactically; the agent and the figure in the former example and the agent and the ground in the latter. They are cases of noun incorporation in English. The ground and the figure are incorporated to the meaning of the verbs, *pocket* and *debone*, respectively.

In this initial process, every subclass of the verbs of putting and removing was referred to as we still did not know how these verbs are syntactically realised in Japanese. It was quite possible that *pocket/debone* verbs in English might be three-argument verbs in Japanese.

4.3.2. Searching for translation

The relevant meanings of these English verbs were selected and translated into Japanese by consulting dictionaries such as *DDWin CD-ROM dictionary* (for verbs of putting), *Genius English-Japanese dictionary CD-ROM version 1.11* (for verbs of removing), *Shogakukan Progressive English-Japanese dictionary*, and *Sanseido's Daily Concise English-Japanese dictionary*[8].

In this procedure, I only selected meanings relevant to the semantic descriptions for each class of verbs in Levin's book. Most English verbs have multiple senses. For example, *recall* (as in *recall an ambassador from London*), which is classified as a *banish* verb of verbs of removing, has another sense of remembering as in *I recalled having read the book*. Only the "banish" sense and its translation equivalent were used in this case.

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[8] The sources are paper-version unless they are specified as the CD-ROM version.

The meanings of English verbs can be realised in various syntactic ways in Japanese. The simplest case is that one English verb corresponds to one Japanese verb of equivalent translation such as *put* which is translated into *oku* 'put' in Japanese. In more complex cases, what an English verb refers to is realised in Japanese as a phrase consisting of multiple words. In one case, a phrase can consist of a predicate and an adverbial; *blanket* (type 8 of verbs of putting) in English can be translated as *ichimennni* 'the whole surface' plus *oou* 'cover' in Japanese. That is, *blanket* is paraphrased as 'cover a whole surface' in Japanese. In another case, a phrase consists of a predicate and one of its argument followed by a postpositional particle; *blanket* (type 9 of verbs of putting) in English is translated as *mouhu* ('blanket') *de* (INST) *kurumu* ('wrap/tuck'), that is, 'wrap with a blanket,' in Japanese[9]. However, I decided not to deal with periphrastic predicative expressions like the above, but only picked out the main verbs and examined if their equivalents in Japanese are verbs of putting and removing (cf. § 4.3.3).

Another thing worthy of mention is that different types of main verbs also vary in form. Japanese has simple verbs, compound verbs, and verbal noun (VN) plus *suru* ('do') verbs, which express identical or at least almost equivalent meanings to those of simple English verbs. I shall discuss these three types of predicate in this thesis.

(14)   Types of verbs

    (i)   simple verbs
        These are verbs that consist of a single word such as *oku* 'put.'

    (ii)   compound verbs
        Compound verbs are those into which two different simple verbs are combined. For example, *mochi-ageru* 'have-lift.'

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[9] Verbs are sentence-final in Japanese, that is, it is an SOV language.

(iii)　VN plus *suru* verbs
These consist of a verbal noun plus *suru* the 'do' verb. The verbal noun is a syntactic category which is peculiar to the Japanese language. Verbal nouns can be of Japanese origin, Chinese origin or English origin. For example, *kaimono-suru* ('shopping-do'), *haijo-suru* ('excluding-do') or *fairu-suru* ('file-do')

The next two chapters on verbs of putting and removing are devoted to an examination of the argument linking patterns of the three types of Japanese predicates in order to propose detailed semantic representations for them. The reason for this is that only three types can be regarded as equivalent to simple verbs in English.

4.3.3. Confirming and screening

Japanese translation equivalents of the English verbs were confirmed and filtered by using Japanese-English dictionaries such as *Kenkyusha's New Collegiate Japanese-English dictionary*, *Kenkyusha's New Japanese-English Dictionary*, and *Progressive Japanese-English Medium-sized Dictionary CD-ROM version 1.11*, and also *the Great Japanese dictionary*, which is an encyclopaedic-type dictionary.

In this process, the main verbs representing Japanese translation equivalents of the English were checked through the dictionaries because some of the verbs might possibly have belonged to another semantic class even though their meaning as a whole VP (with an object or modifiers) seemed to comply with the meaning of a certain semantic class of English verbs. For example, *cage* (a *pocket* verb of verbs of putting) has a translation of '*kago* (cage) *ni* (location) *kau* (keep as a pet),' which is 'keep a pet in a cage.' *Kau* (keep) itself is definitely not a verb of putting, since it is not a three-argument verb and it does not relate to putting something into a location. Verbs like this were eliminated from the data.

4.3.4. Looking for more members

In this fourth stage, after reducing the number of Japanese verbs from the data by leaving out those which were irrelevant to the semantic verb classes in question, I added some more Japanese verbs that are synonymous to the Japanese translation equivalents that had already been found. I consulted the dictionaries, *Tsukaikata no wakaru ruigo reikai jiten: a dictionary of synonyms in Japanese* (abbreviated as *JSD*) and *the Great Japanese dictionary* (abbreviated as *GJD*), in order to find more Japanese verbs which might belong to the verb classes in question. The reason for doing this was that dictionaries might use certain basic and simpler verbs for translation and there may be more infrequently used or special verbs for each verb class which had not been found in the English-Japanese dictionaries I used.

4.3.5. Investigating syntactic behaviours and patterns

The next process was to investigate the syntactic behaviour of the Japanese verbs to the fullest extent, especially as regards of argument linking. *Nihongo Goi Taikei* [Japanese Vocabulary Compendium] and *Nihongo Kihon Doushi Youhou Jiten* [Dictionary of Usage of Japanese Basic Verbs] were consulted because they provide information on argument linking patterns each verb can have as well as semantic restrictions on its arguments. However, the opinions of the two dictionaries were seen to vary concerning the optionality of arguments. Moreover, they do not cover all of the verbs; there was no information on some Japanese verbs I had picked out for translation at all. In these cases, example sentences from the Japanese-English or English-Japanese dictionaries and *Yourei Kensaku Sohuto 2* [Reference soft for examples 2] were referred to and I also used my own intuition to determine the argument linking pattern. Regarding the optionality of arguments, I used the

distinction between definite null instantiation and free null instantiation as a guideline. These notions will be discussed later.

The aspectual properties of the verbs have also been examined through an interpretation when they are used in the *te-iru* form. Basically, *Nihongo Kihon Doushi Youhou Jiten* [Dictionaries for Usage of Japanese Basic Verbs] was consulted. However, the number of verbs it treats is not extensive (actually, it only contains basic Japanese verbs). Again, I have used some examples from the dictionaries and depended on my own intuition and that of other Japanese speakers[10] based on the discussion in the chapter on aspect in Japanese.

4.3.6. Subcategorising into smaller semantic classes

The Japanese verbs were further subcategorised into more detailed semantic classes according to the syntactic patterns they bear and subtle semantic differences (aspectual properties), as Levin did with English verbs. The semantic representation in the framework of the causal-aspectual analysis was given to each class of the Japanese verbs.

4.4. Basic information on Japanese grammar

In this subsection, some syntactic characteristics of the Japanese language which are particularly relevant to the argument linking are discussed.

4.4.1. Particles and antecedent/subsequent obliques

One of the characteristics of the Japanese language concerning argument linking is that postpositional particles case-mark arguments and adjunct NPs. A description is

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[10] I thank Ayumi Tsukiashi, Sachie Funahashi, Fuji Kawata, and Shinako Imaizumi for being

given below of use of particles in Japanese with particular attention to those relevant to the causal analysis. Moreover, it is observed which use of the particles functions as antecedent and subsequent oblique markers. When the uses are not relevant to the causal analysis because they refer to circumstantial settings, this is indicated.

4.4.1.1. Subject and object markers

The subject is marked by either *ga* or *wa*. Basically, *ga* is a Nominative marker[11] and *wa* is a Topic marker. The subject which is realised by *ga* is normally replaceable by *wa* depending on contexts. The proper uses of the two particles are distinguished at the pragmatic rather than syntactic level[12]. However, this is not the main point in the present study and therefore, it is not relevant to discuss the functional differences between the two particles here. They are here treated equally as particles which can mark the subject.

The accusative case is marked by *o*. The following is a typical transitive sentence using the subject (topic) marker, *ga* (*wa*), and the object marker, *o*:

(15) John ga/wa   mado   o   wat-ta.
     John NOM/TOP window ACC break-PAST
     John broke the window.

One special use of the accusative marker in Japanese is that it can also indicate "a space in/on/across/through/along which someone or something moves." (Makino 1986: 349). This use is allowed only with verbs of motion such as *aruku* 'walk,' and *hashiru* 'run' and is quite contrastive with English, which represents the location as

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informants.

[11] *Ga* is also used to mark the argument which is realised as the direct object in English (see Kuno 1973: 81). This particle is used in what is called the double subject phenomenon; both experiencer and stimulus can be realised as subjects in stative predicates of emotion in Japanese. For details, see Taoka (1995). This phenomenon is not relevant to the present study.

[12] For details, see Kuno (1973: 37-61).

oblique.

(16)
Watashi wa   Oxford Road o   arui-ta.
I   TOP   Oxford Road ACC walk-PAST
I walked along Oxford Road.

4.4.1.2. Oblique case markers

4.4.1.2.1. *Ni*

The particle *ni* has an extensive number of uses, whose classification varies according to different linguists. The main uses are classified and exemplified below following previous work by Makino (1986), Morikawa (1997) based on Kuno (1973), Shirota (1993), *Kouji-en* [Japanese extensive dictionary], Kitagawa et al. (1988) and McClain (1981)[13]:

Uses of *ni*:

1 Location (not relevant in the causal analysis—circumstantial): this indicates the location where someone or something exists ('in,' 'at,' 'on').

(17)
Kanojo wa   pari ni   sun-de-iru.
she   TOP Paris LOC live-TE-IRU
She lives in Paris.

Makino (1986: 303) refers to this use as locational existence to distinguish it from a use of *de*, which specifies a place where an action is taking place.

2 Temporal Location (not relevant to the causal analysis—circumstantial): this indicates a point of time at which something takes place ('at,' 'in,' 'on')

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[13] In the parenthesis below, I indicate which oblique marker (antecedent or subsequent) is assigned to each use. This is also applied to the other particles that follow. For the abbreviation under each particle, see the summary of the use of particles at the end of the section or see the abbreviation page before the Introduction chapter. Where the uses of *ni* classified and presented in previous works are not exhaustive, I have presented some additional uses that I, myself, have observed.

(18)
Watashi wa   roku ji   ni   oki-ta.
I   TOP six   o'clock TLOC get.up-PAST
I got up at six o'clock.

3   Goal (**subsequent oblique marker**): this indicates a place toward which someone

or something moves ('to,' 'toward') with verbs of motion.

(19)
Kanojo wa   kinou   gakkou ni   it-ta.
she   TOP yesterday school ALL go-PAST
She went to school yesterday.

I also include in this category the use of direct contact referred to by Makino (1986:

295), according to whom, the particle indicates 'the surface of something upon which

some action direction takes place'. In this use, the translation equivalent in English is

'on' or 'onto'.

(20)
uwagi o   hangaa ni   kakeru
coat   ACC hanger ALL hang
hang a coat on a hanger

The motivation for subcategorising this use under Goal is that the location where the

theme (entity) has direct contact can be interpreted as the Goal that it reaches, that

direct contact here is limited to a spatial one only, and that *ni* in this use is replaceable

by *e*, which indicates the direction in which a certain entity moves.

4   Recipient (**subsequent oblique marker**): this marks a recipient of something or of

an action ('to,' 'for').

(21)
Watashi wa   Taro ni   hon o   age-ta.
I   TOP Taro REC book ACC give-PAST
I gave a book to Taro.

As this use is almost equivalent to the English dative case in the double object

construction, scholars like Makino (1986), Morikawa (1997), and McClain (1981)

regard it as an indirect object marker. I simply call it "Recipient" here because verbs

that occur with this use are verbs of related possessional transfer; these verbs typically

relate to an transitive action that involves an entity being transferred from one person to another as *ageru* 'give', *miseru* 'show', *nageru* 'throw', or *oshieru* 'teach'.

5　Object 1 (**subsequent oblique marker**); this indicates an object towards which an action has been taken.

(22)
Kinou　　kanojo ni　　　at-ta.
yesterday she　　OJCT　meet-PAST
I met her yesterday.

(23)
Yatto　saigo no　　shiai ni　　　kat-ta.
finally last　　GEN　game OJCT　win-PAST
Finally, we won the last game.

The term, object, can be abstract and is used extensively. What I mean by this word is that it marks the object which is acted on. Other scholars have used this term to describe the use of *ni*; *Kouji-en* (p. 1941) lists a use of *ni* as to "specify object". Kitagawa et al (1988: 127) refer to *ni* being used to "specify the object on which an action has an effect", and Shirota (1993: 75) to it being used to "specify the scope where the action or state has an effect". As the examples above show, these objects can be realised as direct objects in English in some cases. The construction as in (22) and (23) is called the transitive nominative-dative form in Morikawa (1997: 16). That is, verbs require two arguments, one of which is realised as the subject and the other marked with *ni* (dative). Another characteristic of the use of *ni* is that the argument marked by it cannot appear as the subject in the passive sentence, (so the example sentences are not passivised).

6 Object 2 (**subsequent oblique marker**); this indicates an object towards which an action has been taken.

(24) John wa   Alex ni   koishi-ta.
      John TOP   Alex OJCT   fall.in.love-PAST
      John fell in love with Alex.

(25) Kinou   kanojo wa   watashi ni   butsukat-ta.
      yesterday she   TOP   I   OJCT   bump.into-PAST
      She bumped into me yesterday.

(26) Jackie wa   John ni   sara   o   araw-ase-ta.
      Jackie TOP   John OJCT dishes ACC   wash-CAUSE-PAST
      Jackie made John wash the dishes.

Some scholars do not distinguish between this use and the previous one (Morikawa (1997), Kitagawa et al. (1988), and McClain (1981)). The objects marked with *ni* are equally acted on in both uses. However, the object in this use can be realised as a subject in the passive. (These sentences allow passivisation.) This is the main reason that I classify this as an independent category. Morikawa (1997: 16) proposes an independent use of *ni* marking the Causee, but I have included this under the current category (example (26)) since the causee is acted on and also appears in the passive.

7 Result (**subsequent oblique marker**): this specifies a result or state after a change.

(27) John wa   kabe o   aka ni   nut-ta.
      John TOP   wall ACC   red RST   paint-PAST
      John painted the wall red.

(28) John no   musuko wa   isha   ni   nat-ta.
      John GEN   son   TOP   doctor RST   become-PAST
      John's son became a doctor.

8 Scope (**subsequent oblique marker**): this specifies the scope or the object where a certain state is valid.

(29) Kono kabe wa   hi   ni   tsuyoi.
      this wall TOP   fire SCP   strong
      This wall is fire-resistant.

(30) Ano   ko   ni-wa   inu ga   kowai.
      that child SCP-TOP   dog NOM   afraid
      That child is afraid of dogs. (Dogs are scary to that child.)

Kitagawa et al. (1988: 127) points out that this use of *ni* can be replaced by *ni-totte* ('for', 'from the standpoint of').

9 Purpose (**subsequent oblique marker**): this indicates a purpose of an action (motion). 'in order to'.

(31)
   Nomi   ni   iku.
   drinking PURP go
   go for drink

In this construction, only verbs of motions are used; *ni* indicates a purpose of an entity's movement to a place.

10 Source/Agent (**antecedent oblique marker**): this indicates an agent or a source in the passive and other receiving constructions ('by,' 'from')

(32)
   John wa   Mary ni   but-are-ta.
   John TOP Mary PA hit-PASS-PAST   (passive)
   John was hit by Mary.

(33)
   Watashi wa   John ni   hon   o   morat-ta.
   I   TOP John PA[14] book ACC receive-PAST (receiving)
   I received a book from John.

11 Cause (**antecedent oblique marker**): this indicates a cause of an event.

(34)
   Kare no   kougekitekina taido   ni   odoroi-ta.
   he   GEN aggressive   attitude CAS get.surprised-PAST
   I was surprised with his aggressive attitude.

Ni is used as an antecedent and subsequent oblique markers in the causal analysis as well as non-causally. Makino (1986: 289-303) gives the synchronic explanation that the basic meaning of *ni* refers to contact, from which all the seven uses he proposes for the particle are derived. On the other hand, *Kouji-en* (p. 1941) states that the original meaning of *ni* is to specify temporally, spatially, or psychologically the point of existence, activity, or the place which is acted on; it specifies an entity, an

event, or a person that the effect of an action or the action itself reaches. A diachronic approach would be more appropriate to show the explanation of the syncretism of oblique markers that Croft (1991: 187-190) proposes. In brief, his proposal about such syncretism states that no surface oblique markers can subsume both antecedent and subsequent 'thematic' roles. *Ni* does not seem to comply with the hypothesis, as it is used as both an antecedent and a subsequent marker. Since *ni* originally marked non-causal circumstantial arguments, (i.e. which are neutral in position), it is no wonder that the particle has developed to be used as both an antecedent and subsequent marker.

4.4.1.2.2. *E*

E is a particle that indicates 'the direction toward which some directional movement or action proceeds,' according to Makino (1986: 116). It is almost equivalent to 'to' or 'towards' in English. *E* is a **subsequent oblique marker** because it is a spatial Path postposition.

(35)
Watashi	wa	kyouto	e	it-ta.
I	TOP	Kyoto	ALL	go-PAST

I went to Kyoto.

(36)
Watashi	wa	tomodachi	e	tegami	o	dashi-ta.
I	TOP	friend	ALL	letter	ACC	send-PAST

I sent a letter to my friend.

As Makino (1986) points out, *e* is used interchangeably for *ni* in the 'direction' sense (equivalent to the Goal use at §4.4.1.2.1 example 3). Many speakers also use it in the place of *ni* even in the 'direct contact' sense (I have classified this sense as a Goal use as well), as the following example illustrates:

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[14] Even for source of possessional transfer, I use the same abbreviation for passive agent, PA.

(37)
uwagi o   hangaa e   kakeru
coat   ACC hanger ALL hang
hang a coat onto a hanger

4.4.1.2.3. *Made*

This is a particle that indicates "a spatial, temporal or quantitative limit or an unexpected animate/inanimate object" (Makino 1986: 225). Its equivalent English translation is 'as far as,' 'till,' 'up to,' 'until,' 'through,' or 'even.' The substitution of *made* in the spatial meaning of 'up to' for *e* or *ni* (in the meaning of the 'direction' (Goal) sense above) causes a very slight semantic change focusing on the course rather than on direction. *Made* can be considered as a **subsequent oblique marker** and is represented as Allative as *ni* and *e* are. (See the summary below).

(38)
Watashi wa   kyouto ni/e/made it-ta.
I   TOP Kyoto ALL   go-PAST
I went (up) to Kyoto.

4.4.1.2.4. *Kara*

When it is used as a postpositional particle, *kara* indicates a temporal or spatial starting point or a source. A source can be a person, material, cause or reason. Its English equivalents are 'from,' 'since,' or 'out of.' The meaning of the temporal starting point is irrelevant in the causal analysis. When *kara* indicates a spatial starting point, it is a **subsequent oblique marker** as a spatial postposition. When it is a personal source or material, it is an **antecedent oblique marker**. As Croft's (1991: 194) argues that spatial prepositions which are non-causal and subsequent obliques are metaphorically extended to causal relations, in which case, the ablative form is mapped to the antecedent oblique in the space-causal metaphorical extension. (The allative is used as the subsequent oblique in the causal anlaysis. For details, see Croft (1991: 194)).

Spatial starting point (subsequent):

(39)
    Nimotsu o   Kyoto kara Kobe made hakobu.
    luggage ACC Kyoto ABL Kobe ALL   carry
    carry the luggage from Kyoto up to Kobe.

Source (antecedent):

(40)
    Budou kara wain o   tsukuru.
    grape   SRC wine ACC make
    Wine is made from grapes.

Agent (antecedent):

(41)
    Watashi wa   John kara hon o   kari-ta.
    I   TOP John SRC book ACC borrow-PAST
    I borrowed a book from John.

4.4.1.2.5. *Yori*

This indicates a set point in terms of space. *Kara* can replace it when a starting point

in space is indicated, in which sense, it is a **subsequent oblique marker**.

(42)
    Kare wa   nimotsu o   Kyoto yori hakon-de[15]-ki-ta.
    he   TOP luggage ACC Kyoto ABL carry-LINK-come-PAST
    He carried the luggage from Kyoto.

4.4.1.2.6. *De*

According to Makino (1986: 105-111), *de* has four uses, two of which are antecedent

oblique marker. The use of *de* are as follows:

1 Instrument or means (**antecedent oblique marker**): it indicates the use of

something for doing something.

(43)
    Chichi wa   basu de   kaisha e   iku.
    father TOP bus   INST office ALL go
    My father goes to the office by bus.

This use is relevant to container adverbial *de* discussed in the chapter on aspect in

Japanese. It indicates required time, which is subcategorised under 'instrument' since

the time required for doing something can be an instrument in a broader sense ('do

---

[15] *De* is an allophonic variant of the *te*-participial (as in *te-iru*), which connects two verbs. I gloss of

something using a certain amount of time.')

2 Place (not relevant to the causal analysis—circumstantial): in this use it indicates

location, other than location of existence ('at,' 'in,' 'on'), which is marked by *ni*.

(44)
    Chichi wa   unsouya   de   hatarai-te-iru.
    father TOP transportation.company LOC work-TE-IRU
    My father is working at the transportion company.

3 Cause and Reason (**antecedent oblique marker**): in this use it indicates a weak

causal relationship, which is translated into English as 'and,' 'because of,' 'due to,' or

'because.'

(45)
    John wa   byouki de   gakkou o   yasun-da.
    John TOP illness CAS school   ACC be.absent.from-PAST
    John was absent from school because of illness.

4 Time (not relevant to the causal analysis): in this use it indicates the time that

something terminates[16].

(46)
    Harugakki wa   gogatsu de owaru.
    spring.term TOP May   in end
    The spring term ends in May.

4.4.1.2.7. *To*

To has three uses as a postpositional particle. Its basic meaning is 'with.'

The uses of *to* are as follows (Makino 1986: 473-483):

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te/de as 'LINK' in this use.

[16] *De* in this use is replaceable by *ni* in the locative (point of time) sense.

1 Accompaniment (**antecedent oblique marker[17]**): in this use it marks a noun phrase which maintains a reciprocal relationship with the subject of a clause. The English translation will be 'with,' 'as,' or 'from.'

(47)
Mary wa John to odot-ta.
Mary TOP John COM dance-PAST
Mary danced with John.

2 Exhaustive Listing (not relevant to the causal analysis): in this use it lists things exhaustively ('and').

(48)
Markus wa eigo to doitsugo to huransugo o hanasu.
Markus TOP English and German and French ACC speak
Markus speaks English, German, and French.

3 Quotation and sound symbolism (antecedent oblique marker): in this use it marks a quotation, mimetic or onomatopoeic expression which indicates sound or the manner in which someone/something does something. The equivalent translation is 'that,' 'with the sound of,' or 'in the manner of.'

(49)
Kodomo wa batabata to hashiri-mawat-ta.
child TOP clattering.noise QSS run-round-PAST
The child ran around with a clattering noise.

As it can be used with mimetic/onomatopoeic expressions to describe a certain manner in which the action is carried out, I would classify it as an antecedent marker. I am not sure if the quotation use is relevant to the causal analysis or not. It will be recalled that the sound symbolism use was mentioned as the quotation marker in Chapter 3.

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[17] The Comitative is regarded as an antecedent oblique marker (see Croft 1991: 178, 184-187). This can be represented nicely in the three-dimensional representation. However, it is difficult to represent it in the simplified two-dimensional representation.

4.4.1.3. Summary

There follows a summary of the particles and such of their uses which appear in and are related to the causal analysis:

Table 1. Summary of particles

particle	uses (mainly from Makino: 1986)	case/ meaning	Abbreviation/ translation	position in causal analysis
ga	---	Nominative	NOM	SBJ
wa	---	Topic marker	TOP	SBJ
o	---	Accusative	ACC	OBJ
ni	Location (existential)	Locative	LOC	S.OBL
	Temporal Location	Locative	TLOC	N/A
	Goal	Allative	ALL	S.OBL
	Recipient	Recipient	REC	S.OBL
	Object 1	Accusative-like	OJCT	S.OBL
	Object 2	Accusative-like	OJCT	S.OBL
	Result	result	RST	S.OBL
	Scope	scope	SCP	S.OBL
	Purpose	Purposive	PURP	S.OBL
	Source/Agent	Source/Passive Agent	PA	A.OBL
	Cause	cause	CAS	A.OBL
e	---	Allative	ALL	S.OBL
made	---	Allative	ALL 'up to'	S.OBL
kara	spatial starting point	Ablative	ABL 'from'	S.OBL
	source	Source/Agent	SRC/AGT	A.OBL
yori	---	spatial set point	'from'	S.OBL
de	Instrument/means	Instrument/ means	INST	A.OBL
	Place	Locative	LOC	N/A
	cause and reason	Cause	CAS	A.OBL
	time	temporal set point	'at' 'in' 'on'	N/A
to	accompaniment	Comitative	COM	A.OBL
	exhaustive listing	listing	'and'	N/A
	quotation and sound symbolism	quotation and sound symbolism	QSS	A.OBL?

In the second column ('uses'), basically, Makino (1986)'s terminology is used when a

particle has more than one meaning (except *ni*). In the third column, I use the popular

name of case or put its meaning when terminology from case-marking is not available.

The fourth column indicates the abbreviation used in the glosses of example sentences.

The final column is for the position in the causal analysis each role marked by the

particles occupies. N/A (not applicable) means that some use of the particles is

irrelevant to the position of the causal analysis. Some particles do not mark

participants in an event but only refer to a circumstantial setting (time, place) in which

an event takes place, like locative *ni* or *de*.

A final remark here is that the Japanese language is quite flexible in terms of word

order even though it is predominantly SOV. Thus, NPs that are marked by particles

appear in a relatively free order (Kuno 1973: 3-16, Morikawa 1997: 15).

4.4.2. Optional arguments—DNI vs FNI

In discussing argument linking, we have to consider another characteristic of the

Japanese language, which is the extensive ellipsis of elements in a sentence. Elliptical

elements can be words, particles, and clauses. As Morikawa (1997: 17) notes, 'any

elements recoverable from context may be deleted without making a sentence

ungrammatical' and 'speakers of Japanese are more tolerant toward ellipsis than

speakers of languages such as English.' Japanese even omits the subject. Japanese

speakers are very likely to omit an oblique argument of three-argument verbs, in

which case they look like two-argument verbs. The problem is how to distinguish

two-argument verbs and three-argument verbs with an omitted argument. Some verbs

are ambiguous in terms of their valency. Even the two dictionaries I have consulted to

check the linking pattern of each verb (*Nihongo Goi Taikei* [Japanese Vocabulary

Compendium] and *Nihongo Kihon Doushi Youhou Jiten* [Dictionary of Usage of

Japanese Basic Verbs]) have different opinions about the optionality of arguments for a few verbs.

In an attempt to make clear the distinction between two-argument verbs and three-argument verbs in Japanese, I employ the distinction of FNI (Free Null Instantiation) and DNI (Definite Null Instantiation) discussed by Fillmore and Kay (1993). A Null Instantiation represents an absent complement whose semantic roles are a part of the interpretation of the sentence. FNI and DNI are two cases of the Null Instantiation.

According to Fillmore and Kay (1993, §7.2), DNI requires "an appeal to something in the conversants' context for its interpretation." According to Croft (pers.comm), it needs "a highly accessible referent which is implicit." For example, *I already sent the invitations* is acceptable only when the people who receive the invitations are inferable from the context or from previous utterances. At least, a hearer should have information that the speaker is going to have a party. Therefore, *send* in English is a three-argument verb even though it superficially can appear as a two-argument verb as in the example sentence above.

For FNI, on the other hand, there are no contextual constraints on a missing element. A referent for a null complement is arbitrarily accessible. For example, we say *The prime minister was assassinated yesterday by the man called John Smith* with the specified killer in mind. We could also omit the passive agent by simply saying that *The prime minister was assassinated yesterday*. In this case, we do not need any contexts that would specify who the killer is. A speaker can utter this sentence without giving a hearer any previous information about this. In that case, a killer is unspecified and can be anybody, but still the sentence is acceptable. This is a case of FNI.

To determine if a verb is a two-argument or a three-argument verb in Japanese, I

examine whether the referent of an omitted argument is specified (DNI) or unspecified (FNI) in context. If a definite noun is required from context, it is specified and the verb will be considered as a three-argument verb. If it is not required from context, which means that an omitted argument can denote anybody, the verb is considered as a two-argument verb.

4.4.3. On path argument

Since this dissertation also treats cases of caused motion (i.e, the agent causes the figure to move from one location to another), it is necessary to speak of the path argument. Some verbs of putting and removing allow both an ablative oblique (spatial source phrase) and an allative oblique (spatial goal phrase), so I shall further clarify what is meant by a path argument using the folllowing typical verb of sending:

(50)
Chichi wa   sono nimotsu o   ima   kara naya ni   hakon-da.
father TOP the   luggage ACC living.room ABL shed ALL carry-PAST
My father carried the luggage from the living room to the shed.

Nihongo Goi Taikei [Japanese Vocabulary Compendium] describes the argument pattern for *hakobu* 'carry' as superficially having four arguments, which are agent, theme (figure), spatial source, and spatial goal. From the example, it may seem that there are really four arguments in the event denoted by (50). However, concerning this case, Jackendoff (1990: 46-47) brings a Path-function into his semantic structures, with a source and a goal as arguments; he treats the path, which is the whole extent of the line where the figure (theme) is travelling, as an argument of motion predicates. In the example, the line from the living room to the shed is regarded as one argument rather than two components each represented by a different location.

The existence of a path argument is also further motivated in Japanese, where the path can be marked by the Accusative:

(51) Kare wa   Kobe kara Osaka made 50km o   10jikan de arui-ta.
      he   TOP Kobe ABL Osaka ALL 50km ACC 10hour in walk-PAST
      He walked a distance of 50 km from Kobe to Osaka in 10 hours.

In the above example, the path argument is realised as having a distance of 50 km, that

from Kobe to Osaka.

In the causal-aspectual analysis, therefore, I treat cases like *hakobu* 'carry,' which

superficially require four arguments, as a verb requiring three arguments, that is, agent,

figure (theme) and path. The path is profiled with the figure, which is the holistic

theme. The ground serves as the reference point in the non-causal relation with the

path. The type of caused motion verbs such as *hakobu* 'carry' should be distinguished

from those of real four-argument verbs. One semantic class of four-argument verbs is

represented by verbs of commercial transaction such as *uru* 'sell,' which requires an

agent, recipient, theme and instrument (or exchanged entity) as follows.

(52) John wa   kuruma o   Fred ni   1000pondo de   ut-ta.
      John TOP car   ACC Fred REC 1000pound INST sell-PAST
      John sold the car to Fred for 1000 pounds.

Real four-argument verbs are not discussed in this dissertation[18].

Some of the verbs that are discussed in the dissertation may only have either a

spatial goal or a spatial source besides the agent and the figure. The view is still taken

that there is a path expression. This can be for a path to the spatial goal or for a path

from the spatial source. In either case, "there is a single Path semantically, which can

be expressed by one or more syntactic elements such as NPs or adverbs." (Croft:

pers.comm.) Jackendoff (1990: 290) also mentions in the footnotes 4 of Chapter 2 that

'The innovation of a Path-constituent corresponding to PP permits all prepositions of

Path to be handled uniformly, an important descriptive advance.' That is, the path with

a goal or a source, with a goal only, and with a source only should be treated in the

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[18] For discussion of verbs of commercial transaction, see Croft et al. (2000, § 5).

same way.

4.4.4. Type of verbs

Various type of verbs have already been mentioned briefly in '4.3.2 Searching for translation.' This section further discusses some verb types in more detail, especially, compound verbs.

4.4.4.1. Compound verbs

The Japanese language is very rich in compound verbs, which are a combination of two lexical verbs. In this dissertation, the initial verb of such compounds is referred to as V1 and the second as V2. There is a variety of compound verbs differing in their morphological characteristics. I only focus on lexical *i*-compound verbs[19] which are related to the dissertation, however.

Compound verbs are classified semantically in terms of the semantic relations between V1 and V2. Matsumoto (1996: 198-219) has classified lexical compound verbs into seven types based on semantics, as follows:

    1) pair compounds
    2) cause compounds
    3) manner compounds
    4) means compounds
    5) compounds exhibiting other relations
    6) compounds with semantically deverbalized V2
    7) compounds with semantically deverbalized V1

In the following two chapters on verbs of putting and removing, I examine the semantic representations of compound verbs, focusing on how those of component

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[19] I only focus on what are called i-compounds (as opposed to *te*-compounds) and lexical compounds (as opposed to aspectual compounds) in that these two types of compounds are thought to be "single-word" predicates by the *soo suru* ('so do' = do so) test (cf. Kageyama 1993: 80, Matsumoto 1996: 36)

verbs, V1 and V2, are combined to form a semantic representation as a compound verb following the classification of Matsumoto above. However, I do not examine cause compounds because they all have an unaccusative verb as V2 and are therefore not relevant to a discussion of three-argument verbs. In the category of compounds exhibiting other relations, Matsumoto lists some exceptional cases that are not relevant to three-argument verbs, either. Manner compounds, which can be confused with means compounds, are not discussed in verbs of putting and removing. Therefore, the other four types of compound are focused on.

4.4.4.1.1. Pair compounds

Matsumoto (1996: 198) states that "two verbs with similar meanings are compounded to indicate the repetitiveness or intensity of the described process" in pair compounds. This category is equivalent to what Kageyama (1993: 99) calls parallel relation. Component verbs in pair compounds not only have similar meanings (i.e. belong to the same semantic class of verbs) but also identical argument patterns. Two component verbs with identical argument structures are combined and the resulting argument pattern for that compound verb is identical to those of the component verbs. One example is from verbs of putting: *maki-chirasu* (sprinkle-scatter).

(53a)
Douro ni jari o maku.
road ALL gravel ACC sprinkle   (V1—locative variant)
sprinkle gravel on the road

(53b)
Douro ni jari o chirasu.
road ALL gravel ACC scatter   (V2—locative variant)
scatter gravel on the road

(53c)
Douro ni jari o maki-chirasu.
road ALL gravel ACC sprinkle-scatter   (compound-locative variant)
scatter gravel on the road

As the examples above show, the linking pattern of V1 and V2 is L-linking, and the resulting compounds preserve the same linking pattern. I examine how the semantic representations of each component verb contribute to that of the compounds in the relevant chapters later.

4.4.4.1.2. Means compounds

The V1 component specifies the means of an event denoted by V2. The V2 often denotes a result or a change of state that has been brought about. The number of means compounds found for the present study is quite large. The following examples show that means compounds are translated into English either as 'V2 by V1-ing' or 'a verb plus prepositional phrase' construction:

(54)   Examples of means compounds (Matsumoto 1996: 213-226):

ii-nogareru	(say-escape)	'evade by speaking'
nage-katsu	(throw-win)	'defeat … by throwing'
oshi-akeru	(push-open)	'push open'
mushiri-toru	(pluck-take)	'pluck off'
hari-tsukeru	(paste-attach)	'paste on'
uchi-komu	(hit-put.into)	'hammer in'
arai-otosu	(wash-drop)	'wash (dirt) off'
ii-makasu	(say-defeat)	'defeat by talking'
kui-tsubusu	(eat-waste)	'use up … by eating'
sori-otosu	(shave-drop)	'shave off'
hori-dasu	(dig-take.out)	'dig out'

Means compounds vary in terms of the way the V1 and V2 are integrated into an argument structure of a compound as a whole. The V1 and V2 are often different either in the number of arguments they require or in their argument linking patterns and hence the way of integration also varies. The relation between V1 and V2 is described as a right-headed relation (Kageyama 1993: 101-103). This simply means that the verb on the right (V2) is a head and decides the argument linking pattern. This is illustrated in the following chapters.

It is not always easy to differentiate means compounds from manner compounds, where V1 specifies a manner in which an action denoted by V2 is carried out or an action which temporally synchronises with that of V2. One way of distinguishing the two types of compounds is to remember that means compounds can basically be paraphrased as 'V1 *ni-yotte* V2' ('V2 by V1-ing') and manner compounds can be paraphrased as 'V1 *nagara* V2' ('V2 while V1-ing')[20].

Means compounds with extended causation can be misinterpreted as manner compounds since the agent applies force to another participant continuously along its movement (as in *John pushed the cart to NY*) and the two subevents synchronise. However, in a strict sense, the two synchronized events in manner compounds should be carried out by the same participant such as *the cart moved, rumbling*. In relation to the verbs of putting and removing discussed in this dissertation, compounds of this misleading type are treated as means compounds. I return to this in the next chapter.

4.4.4.1.3.Compounds with semantically deverbalized V2

As the term indicates, V2 verbs have lost their original verbal meanings in this category and modify V1 verbs with additional adverbial meaning instead. Some examples of these V2 verbs and compounds are listed in Matsumoto (1996: 218). The following are compounds in this category.

(55)　Examples of left-headed compounds:

V2	*tateru*	*kazari-tateru*	'decorate-actively/too much'
		nuri-tateru	'smear-actively/too much'
	tsukeru	*okuri-tsukeru*	'send-hard/harshly'
		nage-tsukeru	'throw-hard/harshly'

---

[20] *Ni-yotte* is a particle that indicates the means for doing something according to Makino (1995: 297). *Nagara* is 'a conjunction which indicates that the action expressed by the preceding verb takes place concurrently or simultaneously with the action expressed in the main clause' (Makino 1986: 269).

In my data for verbs of putting, *tateru* in *kazari-tateru* 'decorate-actively' and *nuri-tateru* 'smear-actively' is a deverbalised V2. *Tateru* as a full verb meaning 'stand (transitive)', but has an adverbial meaning 'actively' in its deverbalised sense. *Okuri-tsukeru* is a verb of sending and *nage-tsukeru* is a verb of throwing. *Tsukeru* means 'attach' or 'put on' as a full verb. However, it is deverbalised in the above examples and it means 'hard' or 'harshly.' Since the two V2s above are deverbalised, they do not contribute to the semantic structure of the compound verbs. That is, the semantic structure of V1 is carried over to that of the compound verb and the linking pattern of V1 is preserved. Therefore, it is 'left-headed.' Compound verbs of this type are treated like simple verbs in the discussion of verbs of putting and removing.

4.4.4.1.4. Compounds with semantically deverbalized V1

V1 component verbs of compound verbs of this category have lost their verbal meaning. Two examples of such V1 are *sasu* ('thrust' as a full verb) and *toru* ('take' as a full verb). According to *The Great Japanese Dictionary*, they behave like prefixes to intensify the meaning of the V2 or to simply make verbs sound better. Examples from the data of verbs of putting in Japanese are *tori-chirakaru* '*toru*-scatter,' *tori-kakomu* '*toru*-surround,' and *tori-maku* '*toru*-wind.' In this case, the semantic structure and linking pattern of the V2 is preserved in that of the compound verbs so that they are right-headed. Again, they are treated like simples verbs in the thesis.

4.4.4.1.5. Frozen compounds

The last category of compound verbs is frozen compounds (my terminology). They are not included in the classification of Matsumoto. Kageyama (1993: 103) calls them lexicalised compounds. They are idiomatic and fixed expressions, whose component

verbs V1 and V2 do not seem to contribute to the meaning of the compound as a whole. In some cases, even the argument structure of V1 or V2 are not maintained. One apparent example of this kind of compounds is *maki-ageru* ('wind-lift') from verbs of removing. On the one hand, it literally means 'lift something by winding' or 'roll something up.' On the other hand, it also means 'take away,' which has nothing to do with the original meaning of V1 and V2. As the following examples illustrate, the V1 and the V2 of the frozen compound cannot take the same semantic type as their argument.

(56a)
Patrick wa   tomodachi kara kane   o   maki-age-ta.
Patrick TOP friend   ABL money ACC wind-lift-PAST   (compound)

Patrick took money away from his friend.

(56b)
*Kane   o   maku.
 money ACC wind   (V1)
*wind money

(56c)
*Kane   o   ageru.
 money ACC lift   (V2)
*lift money

They are also treated like simple verbs in this thesis.

4.4.4.2. VN-*suru* verbs

VN-*suru* consists of a verbal noun plus *suru* 'do' verb. Verbal nouns are nouns which can be linked to *suru* 'do' directly, as a result of which, they behave as full verbs. Verbal nouns can be of Japanese origin, Chinese origin, or English origin. Those of Japanese origin are nouns whose origin is purely Japanese, such as *irezumi-suru* ('tattoo-do'=to get a tattoo) (Uehara 1998: 134). They can be verbal nominalisations as well. For nominalisation, verbs appear in the *renyoo-kei* 'renyoo-form' that is one of the conjugations of Japanese verbs. An example is *uotsuri-suru* ('fish.angling-do' = do fishing). Verbal nouns can be English loan words, too, such as *fairu-suru*

('filing-do' = file).

Those of Chinese origin dominate in terms of number. Most of them are composed of two Chinese characters, each of them representing a meaning. The semantic relationship between the meaning of the two characters varies. It may manifest a synonymous relation (two synonymous verbs combined together), a complement relation (one is a complement of the other, which is a verb), or an adverbial relation (one modifies the other). In the present study, I am not going to look at the relations of the two Chinese characters of verbal nouns but treat them as single verbs. One motivation for this is that, as Croft suggests, we do not use the component character separately. For example, in *hai.chi-suru* ('arrange, post'), *hai* signifies 'distribute' and *chi* signifies 'put.' They make 'distribute-put-do', which translates into English as 'arrange, post.' However, we do not have such a word as **hai-suru* or **chi-suru*. I only treat the verb as 'arranging/posting-do' and hence 'arrange/post.'

4.5. Summary

This chapter has introduced the causal-aspectual representation for verbal semantics and also explained the methodology of collecting data as well as giving basic grammatical information about Japanese. The next two chapters will examine verbs of putting and removing in Japanese.

5. VERBS OF PUTTING

5.1. Introduction

This chapter discusses and analyses the first class of Japanese three argument verbs which are equivalent to verbs of putting in English. Chapter 9 of *English Verb Classes and Alternations* by Levin (1993) has been consulted in order to collect data on Japanese verbs of putting. According to her comments in Chapter 9 of her book, verbs of putting refer to situations of putting an entity in some location, covering surfaces, and putting things into containers. Levin classified verbs of putting in English into ten subclasses from 9.1 to 9.10 based on their semantic characteristics and syntactic behaviour. Her classification is set out in Appendix B.

5.2. Basic linking patterns

Japanese verbs of putting manifest two linking types, the FA-type (figure-Accusative) and the GA-type (ground-Accusative). L-linking (the locative pattern which is equivalent to the locative variant in English) belongs to the FA-type and I-Linking (the instrumental pattern which is equivalent to the *with* variant in English) belongs to the GA-type. The terms, figure and ground, are used to refer to the two internal arguments of predicates of verbs of putting[1]. Examples illustrating the construction types and associated linking types follow:

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[1] They are what Rappaport and Levin (1988) call Locatum and Goal, respectively, in their discussion of *spray/load* verbs.

FA-type constructions: (2 linking patterns)

L-linking construction (locative pattern)[2]: figure—*o* (ACC), ground—*ni* (ALL)

(1)
Watashi wa   heya ni   shokubutsu o   oi-ta.
I   TOP room ALL plant   ACC put-PAST
I put some plants in my room.

In some cases, the third argument may be omitted. Then, the example manifests **FA-linking** (the figure is in the Accusative).

FA-linking construction: figure—*o* (ACC), ground—omitted

(2)
Watashi wa   mizu o   mai-ta.
I   TOP water ACC sprinkle-PAST
I sprinkled water.

GA-type constructions (2 linking patterns):

I-linking construction (instrumental pattern): figure—*de* (INST), ground—*o* (ACC)

(3)
Watashi wa   hon o   kami de   oot-ta.
I   TOP book ACC paper INST cover-PAST
I covered the book with paper.

GA-Linking construction: ground—*o* (ACC), figure—omitted

(4)
Watashi wa   denchi o   juu.den-shi-ta.
I   TOP battery ACC fill.electricity-do-PAST
I charged the battery.

There is another linking pattern, which does not belong to either the FA-type nor GA-type. This is the GO-linking construction, of which an example follows:

GO-Linking construction: ground—*ni* (ALL), figure—omitted

(5)
Watashi wa   denchi ni   juu.den-shi-ta.
I   TOP battery ALL fill.electricity-do-PAST
I charged the battery.

L-linking entails FA-linking, and I-linking entails GA-linking.

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[2] *Ni* in the allative use is replaceable by *e* in most of the cases (cf. § 4).

5.3. Analysis

There are 18 types for verbs of putting. These types may be further subcategorised into small subtypes. Each type is discussed in turn as below in terms of the following points of analysis:

    (a) Members
    (b) Semantics
    (c) Syntactic patterns
    (d) Causal and aspectual patterns
    (e) Semantic representations (causal-aspectual analysis)

Firstly, some members of each type are extracted from the data list. This indicates which verbs belong to a certain event class. Secondly, the semantics of the class, that is, which kinds of situation it denotes, is briefly introduced. Thirdly, the syntactic patterns of the event class are discussed and the argument linking patterns that are allowed and prohibited are indicated[3]. Then, the causal pattern and an aspectual pattern are investigated. In doing this, an examination is made of the force-dynamic causal chain of events (the order of participants in the chain) and also the aspectual type of causation, which involves whether or not the causation is extended over time. The aspectual pattern also deals with the interpretation with the *te-iru* form[4] and verbal scale. The aspectual characteristics can from time to time be ambiguous since pragmatic factors are also involved (cf. § 4). However, it is still worthwhile discussing them because a certain subclass of verbs may lexically (that is, conventionally, not pragmatically) favour or reject a certain interpretation (activity in progress etc.) of *te-iru* or lexically entail a (non-trivial) verbal scale. Finally, based on the causal and

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[3] I focus on L-linking , I-linking, and whether verbs allow the source phrase instead of the goal phrase. FA-linking, GA-linking, and GO-linking should be regarded as unacceptable unless otherwise stated.

[4] In this chapter and the next chapter, I will use the terms, retrospective, activity in progress and resultative state reading of *te-iru*, unless otherwise specified such as undirected activity or directed activity, and so on. It is because which construal verbs get with *te-iru* will be made clear in detailed causal-aspectual analysis.

aspectual patterns, a semantic representation based on the causal-aspectual analysis is proposed.

Appendix C presents a table of the classes and subclasses with their characteristics. Appendix D is a list of verbs of putting in Japanese with information about which class category each verb belongs to.

5.4. Classification

5.4.1. Type 1 *Oku* 'put' verbs

5.4.1.1. Members

The following are some members of this type:

> verbs of putting:
> > *oku* 'put', *sueru* 'place/lay', *noseru* 'put', *sue-tsukeru* 'install', *tori-tsukeru* 'install'
> verbs of displaying:
> > *chin.retsu-suru* 'display', *hai.chi-suru* 'arrange'

5.4.1.2. Semantics

This category roughly corresponds to type 1 *put* verbs in English Levin's classification. They relate to moving an entity to another location. The entity is the figure and the location is the ground. The figure and ground are normally still separable even after the former is located at the ground. The spatial relationship between the two (i.e, contact) is reversible and not permanent, as in the way a vase put on the shelf can be movable to somewhere else. Some verbs of this type also refer to an event of causing a change of location of an entity in an extended sense, an event of employing a person in an office or opening a branch in a location.

5.4.1.3. Syntactic patterns

This verb type manifests L-linking but not I-linking as illustrated below:

L-linking:

(6)
John   wa   ima   ni   kabin o   oi-ta.
John   TOP   living.room ALL   vase   ACC   put-PAST
John put the vase in the living room.

*I-linking:

(7)
*John   wa   ima   o   kabin de   oi-ta.
 John   TOP   living.room ACC   vase   INST   put-PAST
*John put the living room with the vase.

They do not allow a source phrase:

(8)
*John   wa   daidokoro kara   kabin o   oi-ta.
 John   TOP   kitchen   ABL   vase   ACC   put-PAST
*John put the vase from the kitchen.

Some verbs in this category allow a variety of locational phrases, which indicates

the neutralness of their meaning of changing location (they do not specify how or to

what position the entity changes its location)[5].

(9)
Terebi no   mae/ushiro   ni   kabin o   oku.
TV   GEN   front/behind ALL   vase   ACC   put
put the vase in front of/behind the TV

(10)
Todana no   ue/shita   ni   hon   o   oku.
shelf   GEN   upper.part/lower.part   ALL   book ACC   put
put the book on/under the shelf

---

[5] Unlike English, which is rich in locational/path prepositions such as *in*, *over*, *under*, *inside*, *beside*, *in front of*, *behind*, Japanese does not have a lot of postpositions that specify location/path; these 'rare' postpositions are *kara* ('from'), *yori* ('from'), *ni* ('to', 'in'), *made* ('upto'), *e* ('to). (Matsumoto 1997: 142, also see Chapter 4). Instead Japanese uses phrases with locational nouns such as *naka* ('inside'), *soto* ('outside'), *ue* ('upper part' or 'surface'), *shita* ('lower part' or 'under'), *mae* ('front'), and *ushiro* ('back') and so on. These words are used in combination with 'ground', 'no(GEN)', 'locational noun', and 'locational/path postpositions' as the above examples show.

5.4.1.4. Causal and aspectual patterns

The causal pattern for this type of verb is straightforward. The agent acts on the figure and changes its location to the ground. Even though the event of 'putting' something on somewhere seems to take a certain amount of time (as taking it, holding it, moving, and putting) in the real world, it is construed as a punctual causation. The verbs lexically select and encode only the punctual transition.

This is shown by the 'more general/typical' sense *te-iru* acquires with these verbs. The normal interpretation of *te-iru* is retrospective. The verbs basically do not have an activity in progress meaning with *te-iru*.

(11)
　*John wa　ima　　　ni　kabin o　　oi-te-iru.
　John　TOP　living.room　ALL　vase　ACC　put-TE-IRU
　John has put the vase in the living room.
　(*activity in progress sense)

The activity in progress sense is not allowed except in two special circumstances. Since we know we need time to prepare (as for holding it) before the figure is really put on the ground (i.e, contact) in the real world, a situation is still interpreted as taking time with *te-iru*. One special circumstance is the 'derived verbal scale' case and the other is the 'runup achievement' case.

When the figure is interpreted as a derived verbal scale, the activity in progress meaning is possible. This means that an event is construed as having multiple actions of putting, that is, a multiple figure is to be put. For example, when the speaker has in mind a certain number (even it is unspecified in the language)[6] of vases to be put, (12) is possible.

(12)
　John wa　kabin o　　hitotsuzutsu ima　　　ni　oi-te-iru.
　John TOP vase　ACC　one.by.one　living.room ALL　put-TE-IRU
　John is putting vases one by one in the living room.

---

[6] Once the number is specified, the event becomes an accomplishment.

The other case is when an event is interpreted as runup achievements. It is possible for (11) to have an activity in progress meaning if the speaker is watching John in the activity of trying to put the vase in the living room such as lifting it to move it into the room.

In both cases, the d-transition of the figure's aspectual contour in punctual causation is thought to extend on the t-scale (as inception + d-process or u-process + completion).

The resultative state reading is possible with *te-iru* as well. The distinction between a resultative interpretation and a retrospective interpretation is related to whether evidence of a resultative situation is perceptible or imperceptible (cf. §3). If the speaker goes into John's living room and sees the vase, sentence (11) has the resultative meaning; he sees the evidence because the vase is there in John's living room. This case is similar to reflexive sentences where the perceptable resultative state of the direct object implies the action of the subject. However, the difference between retrospective and resultative meanings does not make a difference in the definition of an aspect type of verb for semantic representations; verbs which only take the retrospective reading with *te-iru* and those which can take both the retrospective and resultative reading are achievements. Therefore, these are not discussed in the rest of the dissertation. Readers are asked to understand that the retrospective reading with *te-iru* can get the resultative reading when contexts allow (which is rarely). The important fact is whether or not verbs get the activity in progress reading in the conventional sense. Thus, verbs of this type are punctual (achievements) as they do not get the activity in progress reading with *te-iru*.

5.4.1.5. Semantic representations

The semantic representation is the same as in that for *put* verbs from Croft (2000: 83, Figure 10, §4.2).

Figure 1. achievement construal of L-linking of oku *'put' in (6)*
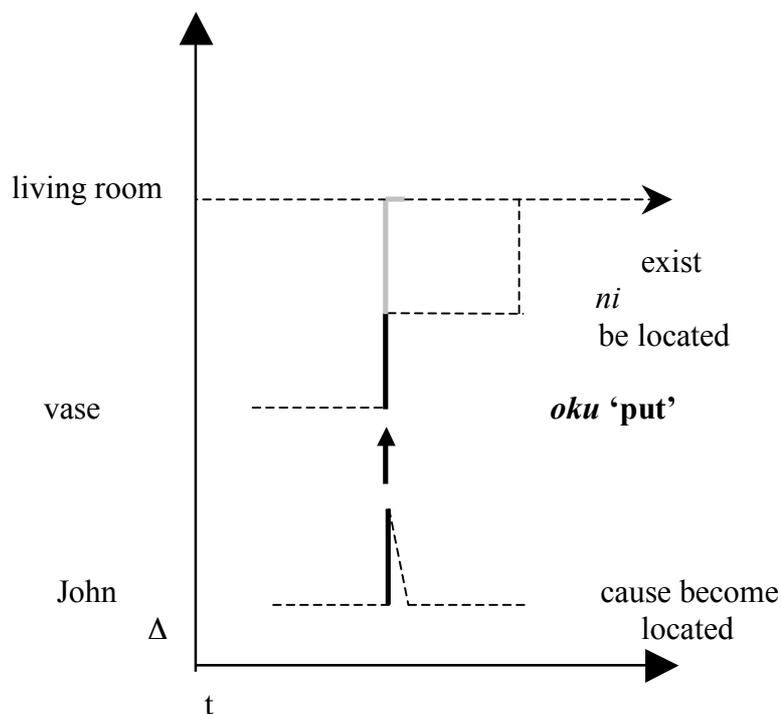
The figure (vase) is represented as undergoing a change of location. The spatial relation with the ground (living room) after the transition is represented by the grey line.

5.4.2. Type 2 *Ireru* 'put into' verbs: spatial caused-transfer verbs with a specified direction

5.4.2.1. Members

The following are the members of this verb type:

> subtype 1:
>   *ireru* 'put into', *dasu* 'take out'
> subtype 2:
>   *ageru* 'raise', *sageru* 'lower', *orosu* 'drop', *otosu* 'drop'

5.4.2.2. Semantics

This category is roughly equivalent to English verbs of putting with a specified direction under 9.4 in Levin's classification. They relate to moving an entity to a location whose direction is specified with respect to its original place. That is, they entail the location/path. *Ireru* 'put into' and *dasu* 'take out' refer to spatial transfer between inside and the outside of something. *Ireru* 'put into' entails that an entity ends up being inside of something by being moved from outside of something and *dasu* 'take out' entails that the entity ends up being outside of something by being moved from inside of something. *Ageru* 'raise' means moving an entity up and *sageru* 'lower' and *orosu* 'drop' mean moving an entity down. *Otosu* 'drop' also entails moving an entity down but it is done by stopping holding/keeping it (letting causation of motion) rather than by actively exerting a force to lower it. Because of the gravity, the entity will go down to the earth naturally.

5.4.2.3. Syntactic patterns

This class of verbs takes an agent as subject, the figure as accusative, a spatial goal as allative, and a spatial source as ablative, as the example below shows. They take a path argument which is specified by spatial goal/source prepositions as the third argument.

162

path pattern: (with spatial goal and spatial source)

(13)
Sue wa   neko o   soto   kara heya no   naka ni   ire-ta.
Sue TOP cat   ACC outside ABL room GEN inside ALL put.into-PAST
Sue let the cat into the room from outside.

(14)
Sue wa   nimotsu o   ikkai   kara nikai   ni   age-ta.
Sue TOP luggage ACC ground.floor ABL first.floor ALL lift-PAST
Sue lifted the luggage from the ground floor to the first floor.

However, it often happens that one of the spatial prepositions is omitted as DNI in an extended sense (see the discussion below). The spatial source phrase is likely to be omitted except with *dasu* 'take out[7]'. Without the source phrase, the verbs manifest L-linking but not I-linking.

L-linking

(15)
Sue wa   neko o   heya no   naka ni   ire-ta.
Sue TOP cat   ACC room GEN inside ALL put.into-PAST
Sue let the cat into the room.

   Concerning the optionality of goal/source phrase, I argue that *ireru* 'put into' and *dasu* 'take out' show DNI. If an entity ends up in a certain location, it should come from inside/outside of that location. With the other verbs, we normally need information from context for omitted sources (DNI) as well. Because the goal location is always specified in terms of direction with respect to the source and vice versa, at least a listener knows/supposes that the source is lower/higher than the goal location if the location is specified. Actually, when we compare *ireru* ('put into')-type

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[7] With *dasu* 'take out', quite often the goal phrase is omitted instead of the source phrase. That is the reason why this verb and compound verbs with *dasu* as V2 components appear a lot in verbs of removing in the next chapter. Basically, all the verbs of this category can appear as verbs of removing when the goal phrase is the one that is omitted. However, the frequency of appearance of these verbs as verb of removing is much lower than that of *dasu* 'take out'. I would say that the reason is that we tend to focus on the resultative state for communicative purposes; that is, what kind of change is caused is naturally more important than what the original state/location is. Therefore, when there is a path argument, the resultative state (i.e. goal) is more likely to be chosen as an argument. This is what happens for the other verbs of this type. *Dasu* 'take out', lexically probably, implies a greater focus on the original state (source) than on the result (goal).

and *ageru* ('raise')-type verbs, it is more likely for the latter to omit the goal phrase (i.e. they omit the path argument as a whole and end up in FA-linking construction). This is because the latter type can be construed as directed activity without a delimiter such as goal phrase. When we raise or lower something (without specifying a source or a goal), the entity moves on the degree scale of lower and higher. A closer examination shows that there are two types of aspectual construal with *ageru* 'raise'. Example (16a) shows a construal in which somebody raises his hand to the top of the shelf to pick something up:

L-linking

(16a)	John	wa	tana	no	ue	ni	te	o	age-ta.
	John	TOP	shelf	GEN	over	ALL	hand	ACC	raise-PAST

John raised his hand up to the shelf.

There is a goal and it is the achievement of 'raise his hand to the top.' Another construal is exemplified in (16b).

FA-linking

(16b)	John	wa	hata	o	age-ta.
	John	TOP	flag	ACC	raise-PAST

John raised the flag.

This lacks a goal, but we can still say that is can convey an achievement of 'putting the flag higher than before.' Therefore, it does not matter how much higher the flag is raised by John. Even 'one metre' is enough to say that the person raised the flag. Alternatively, he can raise the flag indefinitely keeping on putting it up higher specifying the higher point on the scale of "low and high"[8]. This is a crucial difference between *ireru* 'put into' type and *ageru* 'raise' type verbs. The latter can occur without goal phrases or source phrases as in (16b). The former should either

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[8] The verbs in subtype 2 are called "atelic verbs of directed motion" by Hay et al. (1999). Verbs of this type show aspectual duality of atelic and telic situation. In the above example, (16a) is typically a telic situation as the event is delimited by the goal phrase while (16b) is ambiguous as the situation can be construed as directed activity without the goal phrase.

have goal phrases or, at least, source phrases since without these we do not set any boundary of 'in' and 'out.'

Another syntactic property of the verbs of this category is that they make compounds very productively as V2 components (see the discussion of means compounds later in this chapter). Moreover, they also have intransitive counterparts in verbs of motion such as *deru* (go out) for *dasu* (put out), *agaru* (rise) for *ageru* (raise) and *sagaru* (fall/drop) for *sageru* (lower).

5.4.2.4. Causal and aspectual patterns

The causation pattern is that the agent acts on the figure to move it (away from a source to a specified location). These verbs show indeterminacy between punctual causation and extended causation; depending on contexts, they can be either punctual or extended. Taking *ireru* 'put into', for example, what the agent needs to do to move an entity like air or a cat into the room is to open the door or the window (i.e, punctual causation, or more specifically, letting causation of motion). In the case of putting the car into the garage, the driver needs to continue acting on the car (i.e, extended causation). In an extended causation construal, the motion of the figure can describe a trajectory of motion, making the imaginary line of moving possible.

However, *ireru* 'put in' and *dasu* 'take out' basically refer to punctual causation except in special circumstances, as there is a clear line of being inside or outside of something, and hence there should be a clear line between putting an entity into or out of a location. *Te-iru* with these two verbs normally does not have an activity in progress reading unless an event is construed as an activity of an iterated cycle, or the figure is thought to be a derived verbal scale, or the event is forcibly construed as a runup achievement.

(17) *Haha wa neko o heya no naka ni ire-te-iru.
Mother TOP cat ACC room GEN inside ALL put.into-TE-IRU
Mother is putting the cat into the house.
(Mother is letting the cat into the house.)
(*activity in progress sense)

The special case where an event denoted by the two verbs is durational is also related to pragmatic factors; the nature of the figure and the ground may allow the accomplishment reading. Even though there is a clear line between being in and out of something, it is possible that something is on the line. For example, putting a car into the garage, we can say putting a car halfway into a garage. In this case, the imaginary trajectory line on the car is crossing the boundary which differentiates outside and inside the garage. Another case is that we can put one suitcase in the middle of the front door of the house and say the suitcase is half inside and half outside the house. The suitcase is crossing the boundary that differentiates the inside and outside of the house. In these cases, the car and the suitcase are holistic themes which are closely associated with the verbal scale. Moreover, *te-iru* also can bear the meaning of activity in progress.

(18) Chichi ga shako ni kuruma o ire-te-iru.
Father NOM garage ALL car ACC put.into-TE-IRU
Father is putting his car in the garage.

When the figure measures out the event as in (18), the whole event is regarded as being of an accomplishment type. To allow this interpretation, the figure must be a concrete object and also there should be a clear distinction between inside and outside of the ground; the whole event is measured as the figure object that has concrete form or surface crosses the boundary. The relative positioning of the figure with respect to the line serves as a verbal scale.

Ageru 'raise' and *sageru* 'lower', which entail transfer of an entity upwards or downwards, also have a verbal scale. In this case, the figure travels from one place to

166

another place but there is not any clear boundary which distinguishes between the two; the verbal scale is the path either from a source or to a goal (or both). The event is measured out according to how far the figure has travelled on the path.

However, *te-iru* tends to have a meaning of directed activity when this path is specified, as in (19)[9].

(19)
Kureen ga   piano o   {ikkai   kara} jukkai   ni   age-te-iru.
crane   NOM piano ACC {ground.floor ABL} ninth.floor ALL lift-TE-IRU
The crane is lifting the piano {from the ground floor} to the ninth floor.

Pragmatic factors also interact with aspectual behaviour with *ageru* 'raise' and *sageru* 'lower'. When a goal is specified (even as DNI) without the source phrase, the sentence is more likely to be interpreted as having resultative meaning as in (20).

(20)
Seito   ga   te   o   {atama no   ue   ni}   age-te-iru.
student NOM hand ACC {head   GEN over ALL}   raise-TE-IRU
The student's hand is up over his head as a result of having raised his hand.

World knowledge indicates that it does not take much of an effort for a person to raise his hand. In this example, the path from the normal position of the hand to over the head is very small, and it is construed as an achievement (trivial verbal scale).

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[9] Curly brackets mean that the phrases inside are optional.

5.4.2.5. Semantic representations

The semantic representations of *ireru* 'put into' and *ageru* 'raise' are as follows.

Figure 2. achievement construal of L-linking of ireru *'put into' in (15)*

room — exist — *ni* — be located inside

cat — *ireru* **'put into'**

mother — Δ — cause become located

t

Figure 3. accomplishment construal of L-linking of ireru *'put into' in (18)*

garage — exist — *ni* — travel

car — *ireru* **'put into'**

Father — Δ — cause move

t
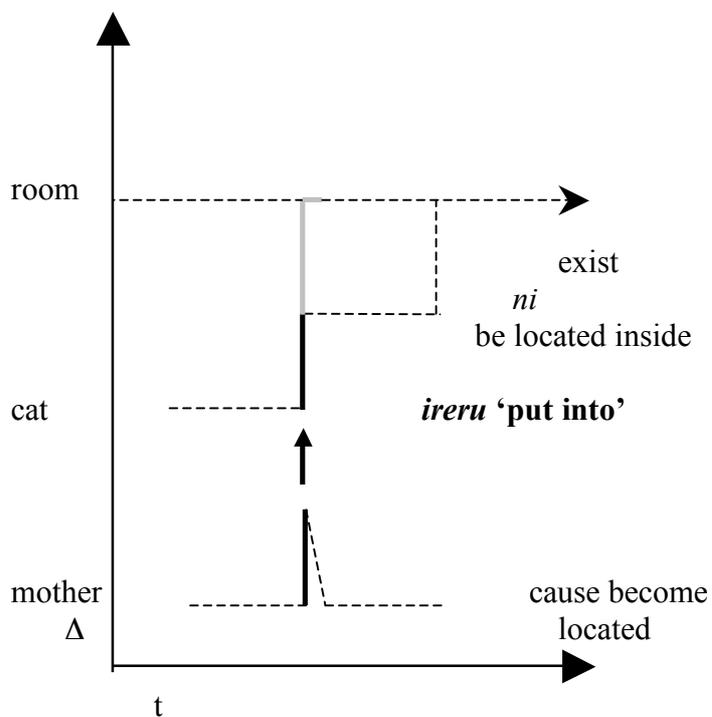
168
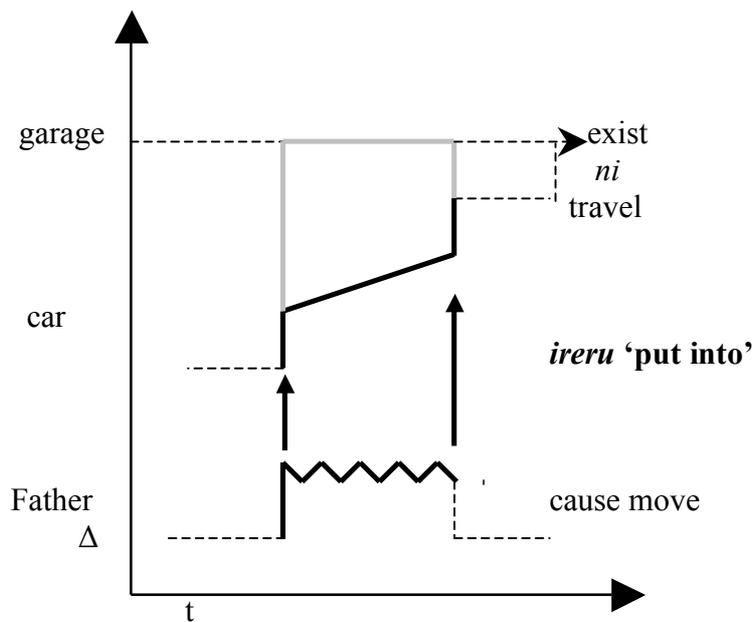
Figure 4. accomplishment construal of L-linking of ageru *'raise/lift' in (19)*
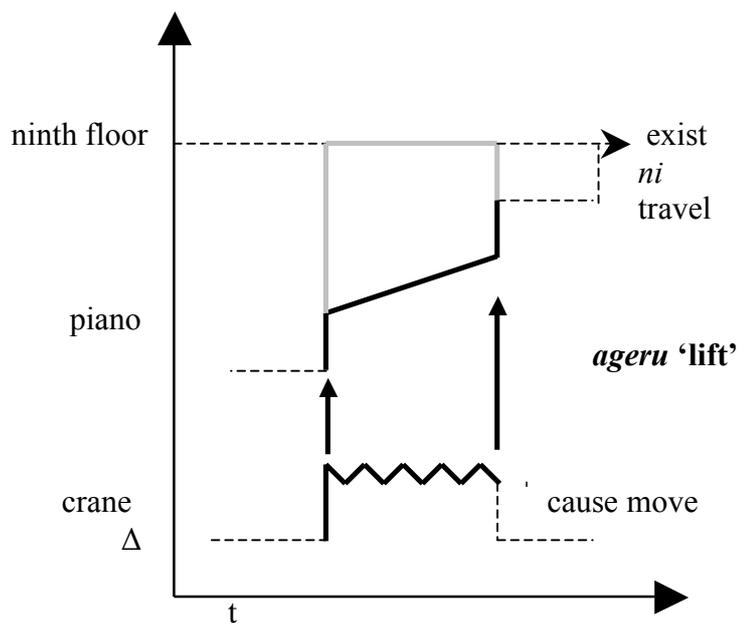
Figure 5. accomplishment construal of path pattern of ageru *'raise/lift' in (19)*
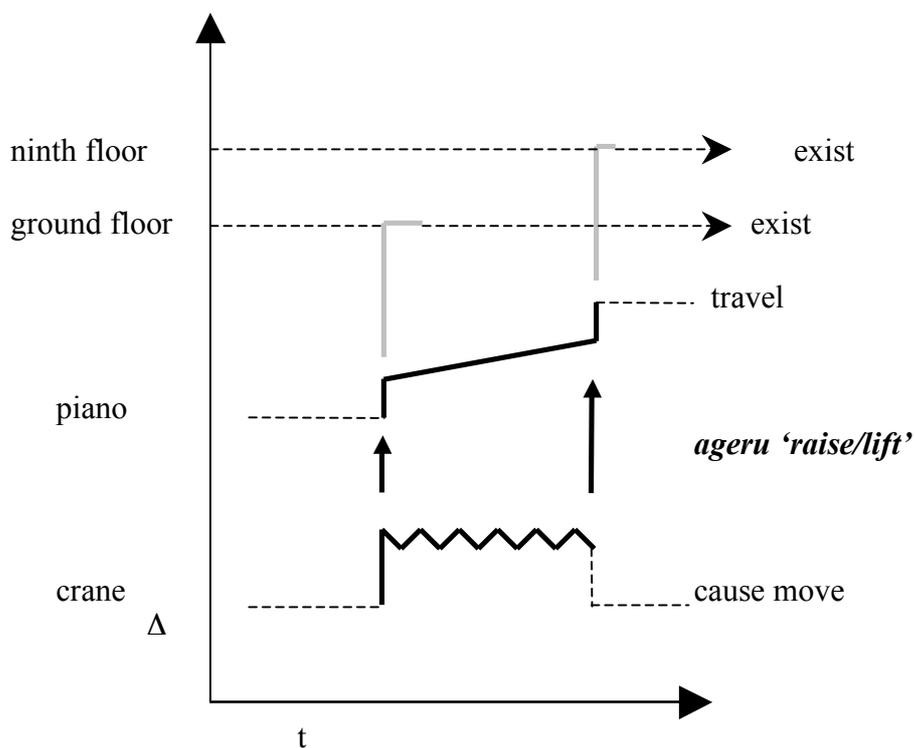
This Figure is based on the semantic structure of a multiple ground expression in directed motion as in Croft (2000: 79, Figure 4, §4.1). The two "ground" expressions are treated as reference points for the path.

Figure 6. achievement construal of FA-linking of ageru *'raise/lift' in (20)*
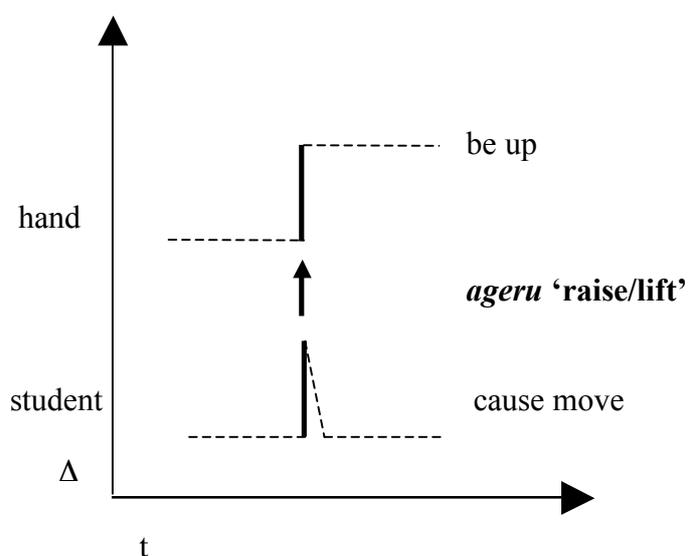
5.4.3. Type 3 *Hitasu* 'soak' verbs

5.4.3.1. Members

The following are some member of this verb type:

    verbs of soaking:
            tsukeru 'soak, steep in', *hitasu* 'soak/dip in', *shizumeru* 'sink into'
    verbs of burying:
            uzumeru 'bury',*umeru* 'bury'
    verbs of confinement:
            kankin-suru 'confine/imprison', *toji-komeru* 'shut/lock in', *kakumau*
            'hide/shelter'
    verbs of stocking:
            takuwaeru 'store', *chozou-suru* 'store'

5.4.3.2. Semantics

Verbs of this category refer to putting things into containers or places, or putting
people into places (especially in order to keep them or keep them in order) such that
the figure is completely inside the ground. The category includes verbs of soaking
which refer to putting things (completely) into liquid or at least making an entity
totally wet with liquid and also verbs of burying which refer to putting things
completely under ground.

5.4.3.3. Syntactic patterns

Verbs in this category take L-linking but not I-linking or a path pattern (including a

source phrase), as the following examples illustrate:

L-linking

(21)
Claire wa   tenugui o   mizu ni   hitashi-ta.
Claire TOP towel   ACC water ALL soak-PAST
Claire soaked a towel into water.

*I-linking

(22)
*Claire wa   tenugui o   mizu de   hitashi-ta.
Claire TOP towel   ACC water INST soak-PAST
*Claire soaked water with a towel.

*Source-phrase/*path pattern:

(23)
*Claire wa   tenugui o   temoto kara {mizu ni}   hitashi-ta.
Claire TOP towel   ACC at.hand ABL {water ALL} soak-PAST
*Claire soaked a towel from her hands {in water}.

Another characteristic of these verbs is that they predominantly occur with *no*

naka ni 'GEN inside ALL = to the inside of' as an alternative to the very general and

neutral postposition *ni*. Because of their semantics, these verbs do not occur with a

variety of postpositional phrases such as Japanese translation equivalents of *outside of*,

over, *under* etc.

(24)
Claire wa   tenugui o   mizu no   naka ni   hitashi-ta.
Claire TOP towel   ACC water GEN inside ALL soak-PAST
Claire soaked a towel in water.

5.4.3.4. Causal and aspectual patterns

The agent acts on the figure to move it into the ground. This can be either punctual

causation or extended causation. This pattern is in some ways parallel to that for type

2 above. When the figure is measurable with respect to the boundary of containers or

places, the action can be construed as an accomplishment (extended causation), but

otherwise as an achievement (punctual causation). However, verbs of confinement and

verbs of stocking conventionally get the punctual construal.

(accomplishment construal)

(25)
Claire wa   tenugui o   mizu ni   hitashi-te-iru.
Claire TOP towel   ACC water ALL soak-TE-IRU
Claire is soaking a towel in water. (activity in progress)

As a accomplishment construal, the above sentence can be modified by *sukoshizutsu*

'little by little':

(26)
Claire wa   tenugui o   mizu ni   sukoshizutsu hitashi-ta.
Claire TOP towel   ACC water ALL little.by.little soak-PAST
Claire soaked a towel in water little by little.

(achievement construal)

(27)
Claire wa   te   o   mizu ni   hitashi-te-iru.
claire TOP hand ACC water ALL soak-TE-IRU
Claire soaked her hand in water. (resultative state reading)

Verbs of soaking refer to an event of putting an entity completely into liquid[10], which

(27) implies. In the accomplishment reading, the figure is thought to be associated

with a verbal scale crossing the boundary from outside the water to inside the water

since 'little by little' in (26) above measures how much of the towel is put into the

water.

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[10] For *tsukeru₂* 'soak', this entailment is a little weaker, however.

5.4.3.5. Semantic representations

The semantic representation of *hitasu* 'soak' with the achievement construal is as follows:

Figure 7. achievement construal of L-linking of hitasu *'soak' in (27)*
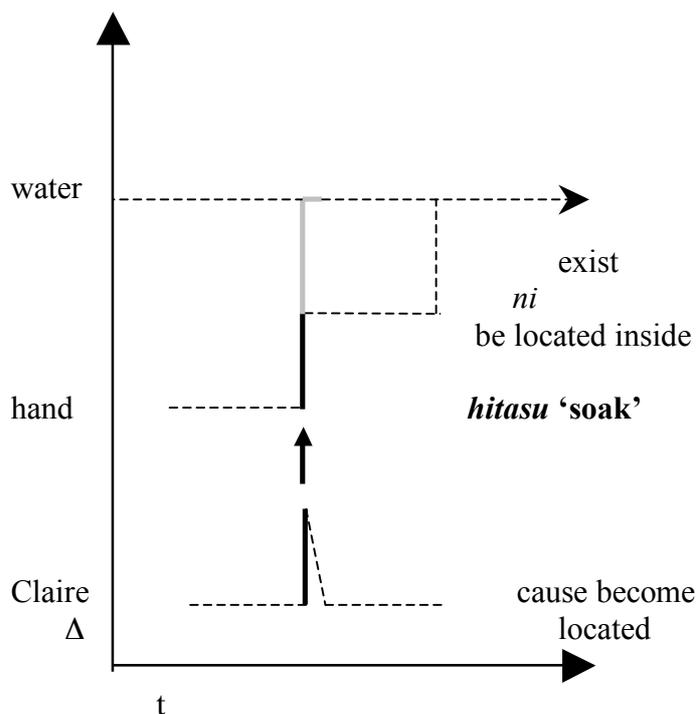
5.4.4. Type 4 *Sosogu* 'pour into' verbs

5.4.4.1. Members

The following are some member of this verb type:

> *sosogu* 'pour into', *shimau* 'put away', *shiireru* 'stock'

5.4.4.2. Semantics

Verbs of this type refer to an event of putting or pouring an entity into a container. Semantically, they are similar to type 3 *hitasu* 'soak' verbs, but syntactically they are slightly different. Some verbs such as *sukuu* 'scoop' and *suu* 'suck' are cross-listed in verbs of removing.

5.4.4.3. Syntactic patterns

Sosogu 'pour into' type verbs manifest an L-linking pattern but not I-linking. Unlike

type 3, they allow a path pattern where both goal and source phrases are realised.

L-linking

(28)
Haha   wa   chawan ni   oyu   o   sosoi-da.
mother TOP   cup   ALL hot.water ACC   pour-PAST
My mother poured hot water into her cup.

(29)
Lindsey wa   omocha o   hako ni   shimat-ta.
Lindsey TOP   toy   ACC box   ALL put.away-PAST
Lindsey put her toy into the box.

path-pattern

(30)
Haha   wa   kyuusu kara chawan ni   oyu   o   sosoi-da.
mother TOP   teapot ABL cup   ALL hot.water ACC   pour-PAST
My mother poured hot water from the teapot into her cup.

(31)
Lindsey wa   omocha o   yuka kara hako ni   shima-ta.
Lindsey TOP   toy   ACC floor ABL box   ALL put.away-PAST
Lindsey put her toy away from the floor to the box.

However, the grammaticality is marginal when only a source phrase appears instead

of a goal phrase. Some of them that are cross-listed as verbs of removing allow a

source phrase, though.

??source-phrase (some OK)

(32)
?Haha   wa   kyuusu kara oyu   o   sosoi-da.
 mother TOP   teapot ABL hot.water ACC   pour-PAST
 My mother poured hot water from the teapot.

(33)
??Lindsey wa   omocha o   yuka kara shimat-ta.
 Lindsey TOP   toy   ACC floor ABL put.away-PAST
 Lindsey put toy away from the floor.

(34)
Lindsey wa   tsumetai mizu o   oke   kara sukut-ta.
Lindsey TOP   cold   water ACC bucket ABL scoop-PAST
Lindsey scooped cold water from the bucket.

5.4.4.4. Causal and aspectual patterns

The agent acts on the figure and causes it to move to the ground. The verbs vary in terms of aspectual analysis. For example, *sosogu* 'pour into' gets the activity in progress reading with *te-iru* and also allows the *tochuumade* 'halfway' adverbial that forces the event into an accomplishment construal.

(35)
Haha   wa   chawan ni   oyu   o   sosoi-de-iru.
mother TOP cup   ALL hot.water ACC pour-TE-IRU
My mother is pouring hot water into her cup.

(36)
Haha   wa   chawan ni   oyu   o   tochuumade sosoi-da.
mother TOP cup   ALL hot.water ACC halfway   pour-PAST
My mother poured hot water into her cup up to halfway.

On the other hand, *shimau* 'put away' is conventionally punctual as it gets the activity in progress reading "only" in special cases.

(37)
Lindsey wa   omocha o   hako ni   shimat-te-iru.
Lindsey TOP toy   ACC box ALL put.into-TE-IRU
Lindsey is putting her toys into the box.

Example (37) is regarded as having an activity in progress meaning when *omocha* 'toy' is treated as plural (derived verbal scale). Since Japanese does not distinguish singular and plural as English does, by the presence/absence of a plural form, *omocha* 'toy/toys' can be thought of as singular or plural. With *te-iru* (37), it is naturally interpreted as plural and the whole sentence bears the activity in progress reading. If the figure is fixed/specified as *sono omocha* 'that/the toy,' *te-iru* bears either a retrospective meaning or forced runup achievement meaning.

(38)
Lindsey wa   sono omocha o   hako ni   shimat-te-iru.
Lindsey TOP the   toy   ACC box ALL put.into-TE-IRU
Lindsey is putting the toy into the box.
(activity in progress by runup achievement)
Lindsey has put the toy into the box.(retrospective)

5.4.4.5. Semantic representations

The following are the semantic structures for the L-linking of *sosogu* 'pour' and *shimau* 'put away'.

Figure 8. accomplishment construal of L-linking of sosogu *'pour into' in (28) and (35)*
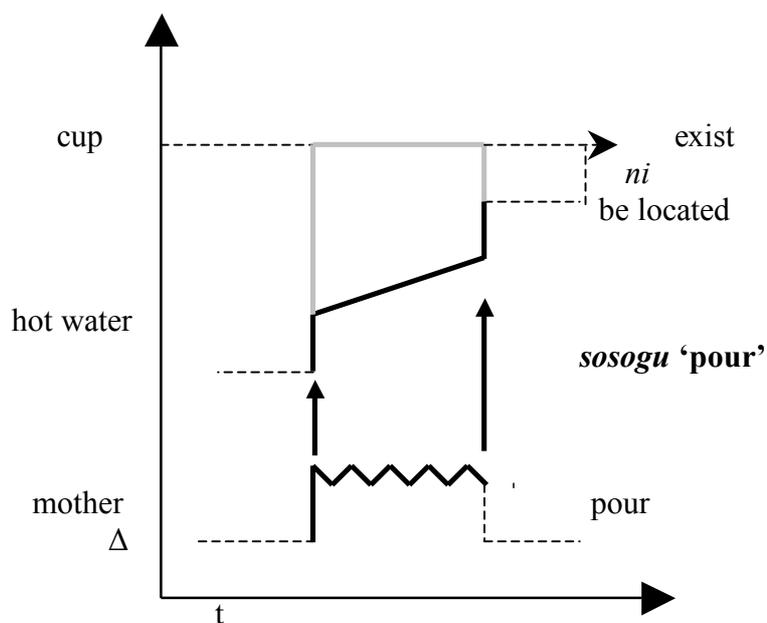
Figure 9. achievement construal of L-linking of shimau *'put away' in (29)*

176
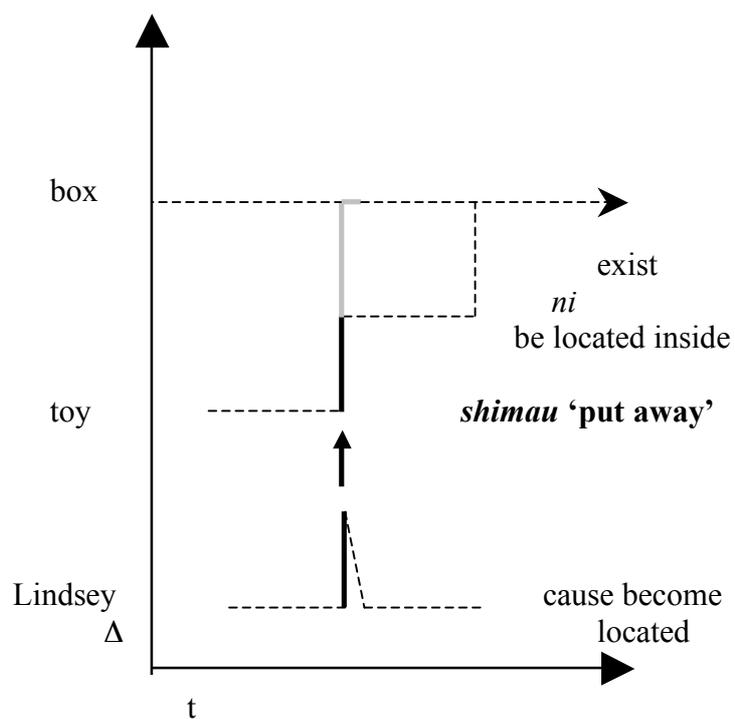
5.4.5. Type 5 *Kabuseru* 'put on' verbs

5.4.5.1. Members

The following are some of the members of this verb type:

> verbs of covering/putting on of L-linking
>   *kakeru* 'put over', *kabuseru* 'put on'
> verbs of filling of L-linking
>   *tataeru* 'fill', *haru* 'fill'
> verbs of putting on
>   *kiseru* 'dress, cover'

5.4.5.2. Semantics

Verbs of this category refer to events of putting an entity on another or between others or filling a container with liquid. The category is actually quite close to type 1 *oku* 'put' verbs and type 3 *hitasu* 'soak' verbs. I distinguish this type from type 1 because it does not allow various kinds of locational phrase as type 1 does. The difference between type 3 and this type is very subtle; in type 3 the figure goes totally inside the ground by moving, which this type does not entail. Rather, the figure may cover a whole/some part of the ground (for verbs of covering and wearing) or the figure may just located in a container or a place which is not confined/closed.

5.4.5.3. Syntactic patterns

Verbs of this type take L-linking. I-linking and source phrases (including a path pattern) are ungrammatical with them. The following examples illustrate:

L-linking

(39)
John wa Mary no   atama ni   boushi o   kabuse-ta.
John wa Mary GEN head   ALL hat   ACC put.on-PAST
John put a hat on Mary's head.

(40)
Mary wa   ohuro ni   mizu o   hat-ta.
Mary TOP bathtub ALL water ACC fill-PAST
Mary filled the bathtub with water.

*I-linking

(41) *Mary wa   ohuro   o   mizu de   hat-ta.
      Mary TOP bathtub ACC water INST fill-PAST
      Mary filled the bathtub with water.

*source-phrase

(42) *Mary wa   jaguchi kara mizu o   hat-ta.
      Mary TOP tap   ABL water ACC fill-PAST
      *Mary filled the bathtub with water from the tap.

5.4.5.4. Causal and aspectual patterns

The agent causes the figure to move on/between/into the ground. The aspectual patterns are different for individual verbs. For example, putting a hat on one's head is conventionally interpreted as achievement and filling the bathtub with water is interpreted as accomplishment as the *te-iru* form shows.

(43) John wa Mary no   atama ni   boushi o   kabuse-te-iru.
      John wa Mary GEN head ALL hat   ACC put.on-TE-IRU
      John has put a hat on Mary's head. (retrospective)

(44) Mary wa   ohuro   ni   mizu o   hat-te-iru.
      Mary TOP bathtub ALL water ACC fill-TE-IRU
      Mary is filling the bathtub with water. (activity in progress reading)

(43) is at best interpreted as involving runup achievement with *te-iru*. On the other hand, *haru* 'fill' can be further modified with *tochuumade* 'halfway', which indicates an accomplishment construal of the event.

(45) Mary wa   ohuro   ni   mizu o   tochuumade hat-ta.
      Mary TOP bathtub ALL water ACC halfway   fill-PAST
      Mary half filled the bathtub with water.

5.4.5.5. Semantic representations

The following are the semantic structures for *kabuseru* 'put on' and *haru* 'fill' with L-linking.

Figure 10. achievement construal of L-linking of kabuseru *'put on' in (39)*
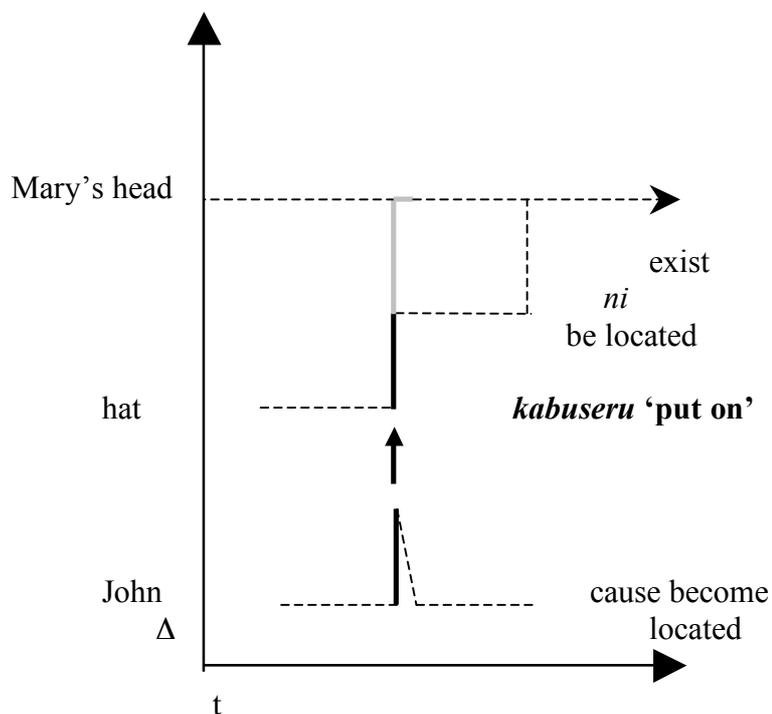
Figure 11. accomplishment construal of L-linking of haru *'fill' in (40) and (45)*
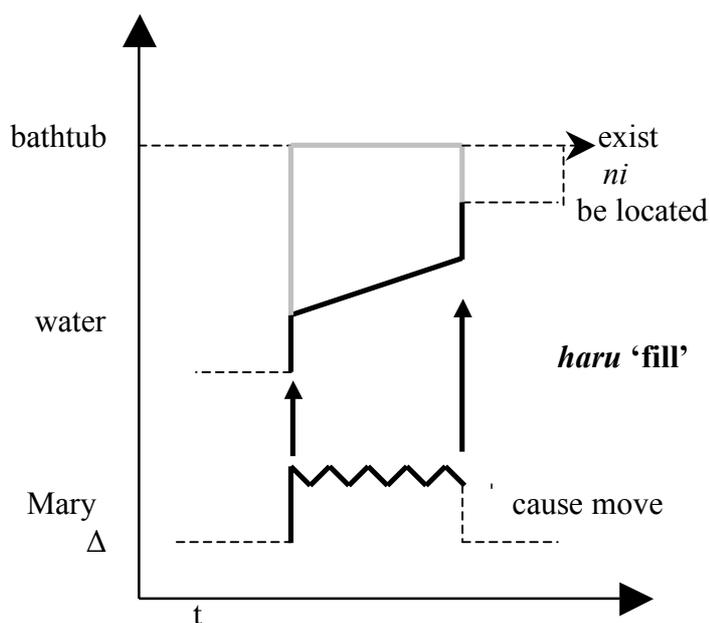
5.4.6. Type 6 *Maku* 'scatter' verbs: verbs of applying and scattering

5.4.6.1.Members

The following are some members of this verb type:

    subtype 1:
        verbs of applying: *tsukeru* 'apply on'
    subtype 2:
         verbs of scattering: *maku* 'scatter', *maki-chirasu* 'scatter'

5.4.6.2. Semantics

Verbs in this class denote an event of applying or scattering an entity onto a surface of something. A special characteristic of this class is that the figure is generally uncountable; it can be liquid, cream, powder, or a granular type of entity like sugar or gravel.

5.4.6.3. Syntactic patterns

Verbs in this class appear with L-linking but not with I-linking, as the following examples illustrate:

L-linking

verbs of applying

(46)
    Anne wa pan ni bata o tsuke-ta.
    Anne TOP bread ALL butter ACC spread-PAST
    Anne spread butter on toast.

verbs of scattering

(47)
    Chichi wa michi ni gravel o mai-ta.
    father TOP road ALL water ACC sprinkle-PAST
    Father sprinkled gravel on the road.

*I-linking

(48)
    *Anne wa pan o bataa de tsuke-ta.
     Anne TOP bread ACC butter INST spread-PAST
    ?Anne spread the bread with butter.

(49)
*Chichi wa michi o jari de mai-ta.
father TOP road ACC gravel INST sprinkle-PAST
*Father sprinkled the road with gravel.

Most of the verbs of scattering may omit the goal phrase and exhibit FA-linking. In addition, these verbs can also take a source phrase and a path pattern.

FA-linking

(50)
Chichi wa jari o mai-ta.
father TOP gravel ACC sprinkle-PAST
Father sprinkled gravel.

source phrase (path pattern)

(51)
Chichi wa mado kara {michi ni} jari o mai-ta.
father TOP window ABL {road ALL} gravel ACC sprinkle-PAST
Father sprinkled gravel from the window {onto the road}.

5.4.6.4. Causal and aspectual patterns

The agent acts on the figure to move it to a surface of the ground. For verbs of applying, the causation type can be extended; for example, one action of applying butter on bread may be prolonged. For verbs of scattering, the action can only be punctual; one action of scattering (ejecting) gravel on the road is punctual. Only by repeating each action of ejecting the figure, will the event be extended. However, the basic/unmarked interpretation with *te-iru* is activity in progress in both types.

(52)
Anne wa pan ni bataa o tsuke-te-iru.
Anne TOP bread ALL butter ACC spread-TE-IRU
Anne is spreading butter on toast. (activity in progress)

(53)
Chichi wa michi ni jari o mai-te-iru.
father TOP road ALL water ACC sprinkle-TE-IRU
Father is sprinkling gravel on the road. (activity in progress)

Because of the nature of the figure, we can apply it to the ground many times; being an uncountable object, it allows an action to repeat itself. For verbs of applying like spreading butter over bread, one action of applying it is also extended. Or, the act of spreading can even be repeated an indefinite number of times.

5.4.6.5. Semantic representations

Two semantic representations are proposed for *tsukeru* and *maku* as follows: one is for

the undirected activity type and the other for the accomplishment type. The undirected

activity type is for an event of the figure being applied to a surface repeatedly (cf.

Dowty (1991) and Croft (2000)). Theoretically, we can keep on spreading butter on

bread many times, and also sprinkling gravel on the road. In this sense, they are each

treated as a undirected activity event of ejecting the figure to the ground. The activity

type representation is as follows:

Figure 12. undirected activity construal of L-linking of tsukeru *'spread' and* maku *'scatter' in (46) and (47)*
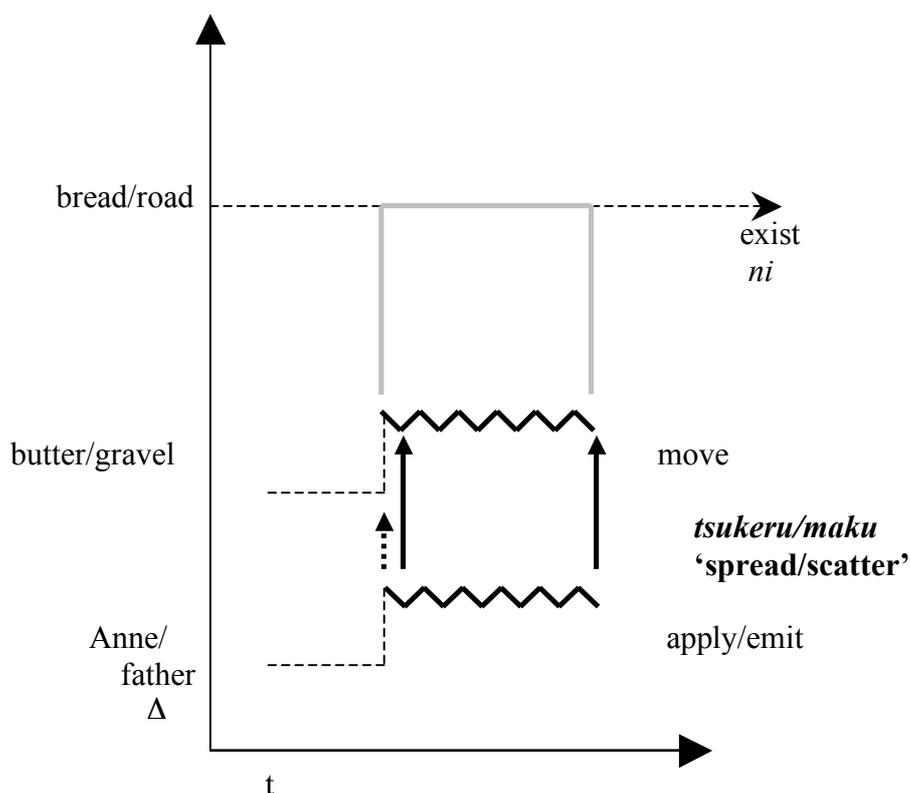
This Figure is based on the figure of undirected activity construal of a directly affected

patient in Croft (2000: 69, Figure 18, §3.5.2). The aspectual contours of the agent and

the figure allow the possibility of applying the figure repeatedly without any particular

end. This is a case of what Croft (2000) describes as an emission verb plus locative

complement. When the goal phrase is omitted, the representation does not contain the third (most upper) aspectual contour.

Figure 13. undirected activity construal of FA-linking of maku 'scatter' *in (50)*
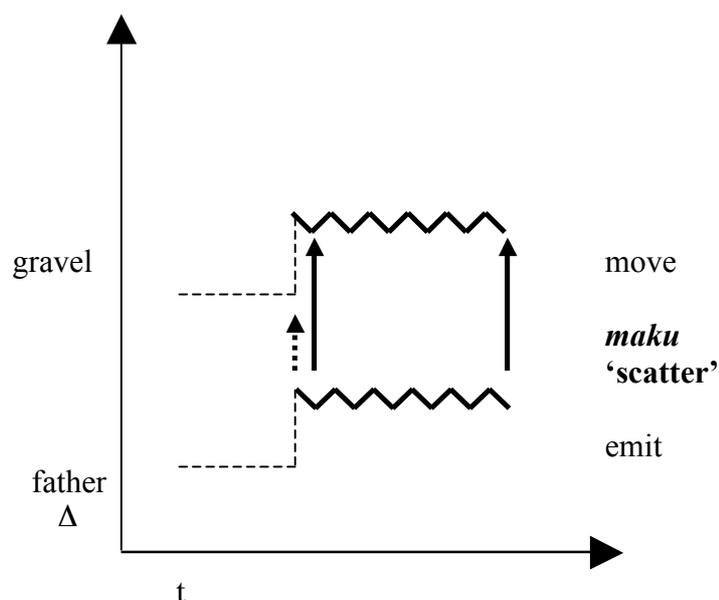
An accomplishment construal for spreading butter on toast is possible. In the normal situation, we stop the act of applying the figure (butter) to the surface of the ground (bread) when the surface is covered with butter. The acceptability of the following sentence provides evidence of this:

(54)
Anne wa pan ni bataa o tochuumade tsuke-ta.
Anne TOP bread ALL butter ACC halfway spread-PAST
Anne spread butter on half of the bread.

The accomplishment reading is not possible with verbs of scattering. First of all, they are more like emission verbs and secondly, the purpose of the events denoted by these verbs is normally not to cover or fill the ground. *Tochuumade* 'halfway' sounds ungrammatical with this type of verbs.

(55)   *Chichi   wa   douro ni   jari   o   tochuumade mai-ta.
        father   TOP road   ALL gravel ACC halfway   scatter-PAST
        *Father scattered gravel on the road halfway.

Figure 14. accomplishment construal of L-linking of tsukeru 'spread' *in (46)*
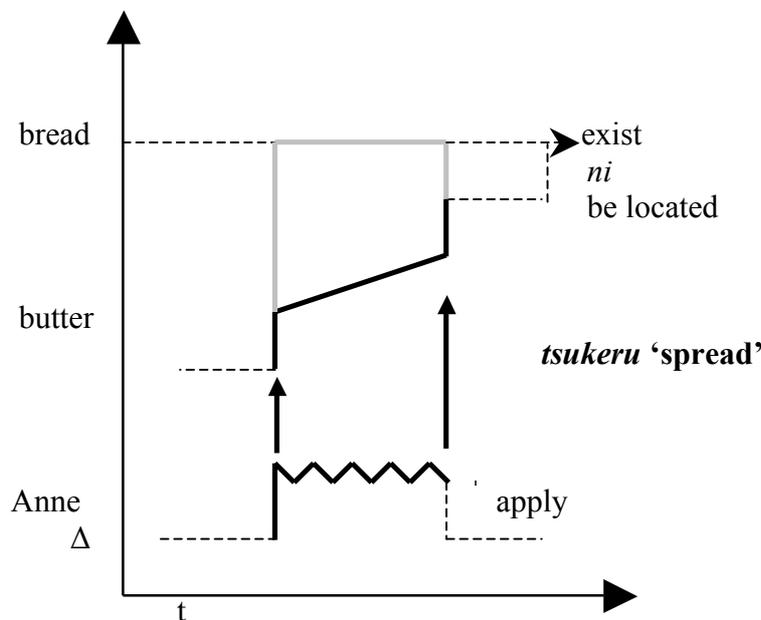
This is the same type of representation as that for the locative alternation of *spray* verbs in English. Now, we can generalise the semantic structures of the accomplishment construal of L-linking. If we compare the accomplishment construals of type 4 *sosogu* 'pour into' in Figure 8, of type 5 *haru* 'fill' in Figure 11, and Figure 14 above, they look similar except for the participants and labelling. What is interesting is that in all these cases (example (36), (45), (54)) the ground acts as a delimiter of the event. The event should finish when the cup is filled (36), when the bathtub is filled (45), and the bread is covered (54). As a result, the amount of the figure that is moved or applied is set. Actually, the *tochuumade* 'halfway' phrase, which implies that the event in question is an accomplishment, modifies the state of the ground; the cup is half filled, the bathtub is half filled, and the bread is half covered. One might argue that the ground could be a verbal scale. However, I would

say that the figure is associated with the verbal scale as *sukoshizutsu* 'little by little'

modifies the amount of the figure in the following sentences.

(56)
Haha   wa   chawan ni   oyu   o   sukoshizutsu sosoi-da.
mother TOP cup   ALL hot.water ACC little.by.little pour-PAST
Mother poured hot water into the cup little by little.

(57)
Mary wa   ohuro   ni   mizu o   sukoshizutsu hat-ta.
Mary TOP bathtub ALL water ACC little.by.little fill-PAST
Mary filled the bathtub with water little by little.

(58)
Anne wa   pan   ni   bataa o   sukoshizutsu tsuke-ta.
Anne TOP bread ALL butter ACC little.by.little spread-PAST
Anne spread the butter on the toast little by little.

Sukoshizutsu 'little by little' is an indicator of directed activity (cf. §3). The fact

that the amount of the figure entailed is little rather than the amount of the ground that

is filled or covered in the above examples suggests that it is the figure that undergoes

directed activity. Thus, the *tochuumade* 'halfway' test should be treated as an

indicator of an accomplishment construal of the event in question as a whole, and then,

the *sukoshizutsu* 'little by little' test should be applied to see which argument is the

holistic theme.

5.4.6.6. Digression on pair compounds

Before proceeding to the next type, I shalll show the representation of pair

compounds. Chapter 4 indicates that V1 and V2 components in pair compounds have

identical argument patterns as well as synonymous meanings. When they are

combined, the resulting argument pattern for the compound verb is identical to those

of each of the component verbs. We have seen that some pair compounds have

appeared in the subclasses discussed so far, though not many. A few examples of pair

compounds are found verbs of scattering; they include *maki-chirasu* (sprinkle-scatter)

and *hane-kakeru* (splash-pour/sprinkle).

V1:

(59a)
| John | wa | douro | ni | jari | o | mai-ta. |
| John | TOP | road | ALL | gravel | ACC | scatter-PAST |

John scattered gravel on the road.

V2:

(59b)
| John | wa | douro | ni | jari | o | chirashi-ta. |
| John | TOP | road | ALL | gravel | ACC | scatter-PAST |

John scattered gravel on the road.

compound:

(59c)
| John | wa | douro | ni | jari | o | maki-chirashi-ta. |
| John | TOP | road | ALL | gravel | ACC | scatter-scatter-PAST |

John scattered gravel on the road.

The linking patterns of *maku* (V1), and *chirasu* (V2) are L-linking, and the resulting compound preserves this linking pattern. The semantic structures of these three verbs are illustrated below. Here I use the simplest aspectual contour of achievement for the compounds. However, they can be construed as undirected activities.

Figure 15. semantic structure for the L-linking of maki-chirasu 'scatter-scatter' *in (59)*
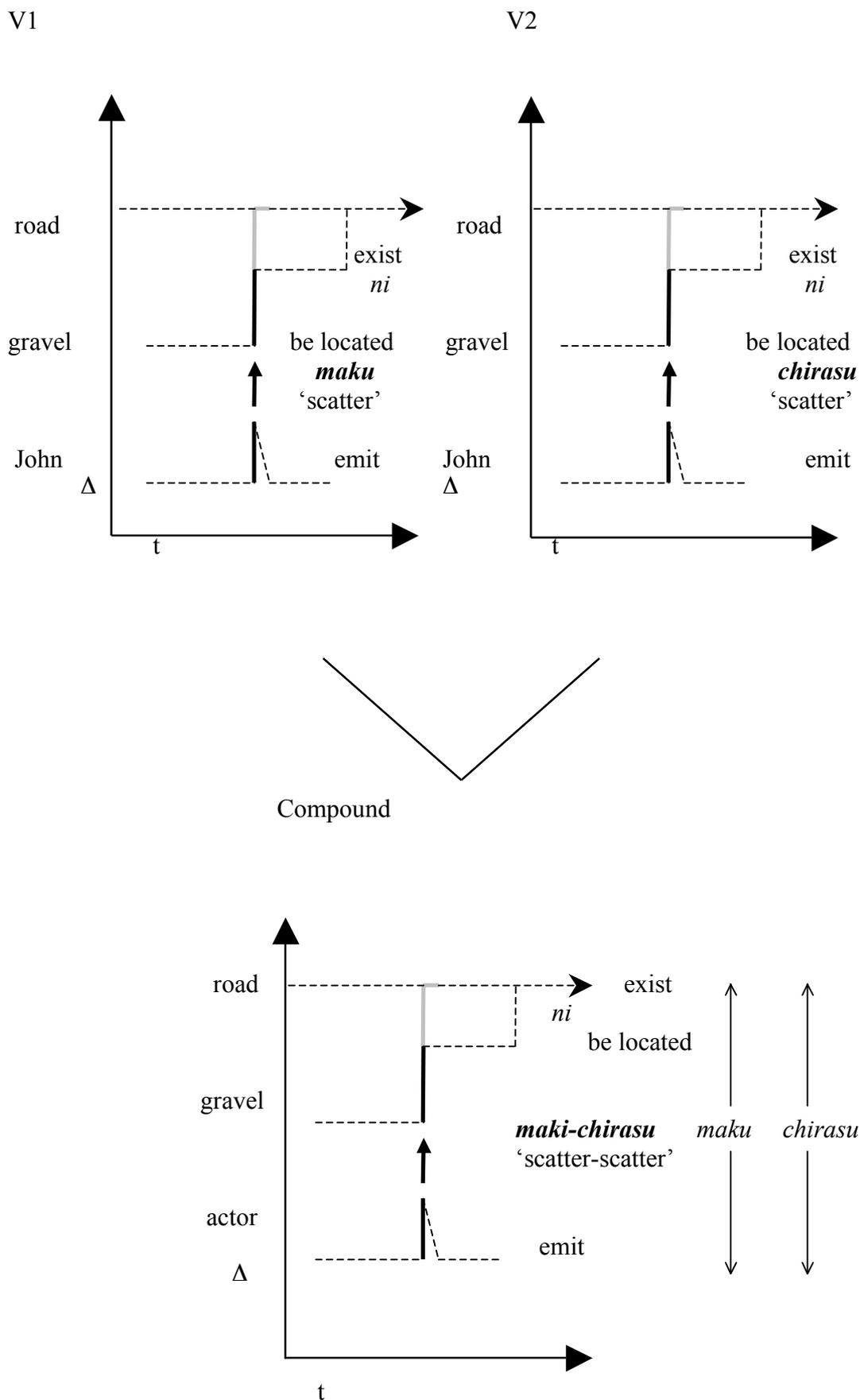
Langacker (1987: 277-327) discusses the grammatical valence relations which hold between symbolic structures that are combined to form a more specified expression. The composite structure of the elaborated expression is yielded by integrating the component structures. When there are shared elements/substructures between the two component structures (correspondences), the specifications of these elements/substructures are merged by superimposing the shared elements/substructures of one component structure onto the other. Since the two component verbs in the above example are accepted as synonymous, with their arguments being referentially identical (even though they are not perfectly synonymous by reference to Langacker's idea that different forms have different or even subtly different meanings) and have the same causal-aspectual representations concerning argument linking, they share exactly the same structures. Also the resultant composite structure is the same as the component ones. That is, one component structure as a whole is simply 'superimposed' on the other to form the integrated structure of the compound expression. However, we do not have proper grounds for determining which one is superimposed on which; one component structure is not dependent on the other and both structures have equal status in contributing to the composite structure.

Matsumoto (1996: 202) points out that the argument structure of pair compounds is potentially ambiguous concerning headedness as the argument structures of the component verbs are identical. He takes the position that they are likely to be right-headed because of a lack of negative evidence and the fact that most compound verbs are right-headed in Japanese. This is in contrast to Langacker (1987: 288), who takes the position that none of the component structures determine the semantic structure when there is no asymmetry between them. I shall come back to this issue later.

Even though the semantic structures of the two components are wholly overlapping, this does not mean either of them is 'meaningless' (Langacker 1987: 297). At least, for pair compounds, this is true. According to Matsumoto (1996: 198), pair compounds indicate 'the repetitiveness or intensity of the described process'. The compound verb, *maki-chirasu*, above has a meaning of scattering extensively all over the surface or everywhere, and sometimes has a negative connotation that the spreading causes a nuisance to others (*JSD* p. 86 and *GJD* p. 2045), which the two component verbs lack. This is in accordance with Langacker's view that an integrated concept of the composite structure is experientially distinct from the recognition of individual components plus instructions for their integration, and it may involve entities and specifications beyond those provided by the components' (Langacker 1987: 281). Even *maku* and *chirasu* are slightly different; the former indicates 'sprinkle' as in pouring water and the latter means to make something disperse and scatter (*GJD* p. 2046 and p.1414).

5.4.7. Type 7 *Tsurusu* 'hang' verbs: verbs of putting in a spatial configuration

5.4.7.1. Members

The following are members of this verb type:

> subtype 1:
> *tsurusu* 'hang', *tarasu* 'suspend, hang', *burasageru* 'suspend', *sageru* 'hang', *tsuri-sageru* 'hang-hang'

> subtype 2:
> *tateru* 'stand', *yokotaeru* 'lay'

5.4.7.2. Semantics

These verbs refer to events of putting an entity (the figure) into location (the ground) like type 1 verbs of putting. A unique characteristic of verbs in this category is that

they specify the spatial configuration that the figure has relative to the ground. Subclass 1 denotes attaching the figure in a high position such that the lower part is free without touching the ground or letting the figure which is attached at the top fall as a result of gravity. Thus, the figure maintains the vertical position in respect to the ground. It may have a parallel position if the ground is also vertical to the earth as in the case of a wall. In subclass 2, the figure keeps an upright position ('stand') or a lying position ('lay').

5.4.7.3. Syntactic patterns

Subclass 1 takes L-linking. The allative *ni* can be replaced by the ablative *kara* when the figure literally maintains the vertical position in respect to the ground, which is high enough to keep the figure from touching the ground. In other cases, replacement of the allative by the ablative form is prohibited. Subclass 2 takes only L-linking and neither of the subclasses takes I-linking.

L-linking
(subclass 1)

(60)
Otouto wa mobiiru o tenjou ni/kara tsurushi-ta.
brother TOP mobile ACC ceiling ALL/ABL hang-PAST
My brother hung/suspended a mobile from the ceiling.
(The ablative form is also used instead of the allative referring to the same location.)

(61)
Haha wa kaaten o mado ni/*kara tsurushi-ta.
mother TOP curtain ACC window ALL hang-PAST
My mother hung the curtain over the window.

(subclass 2)

(62)
Gakuseitachi wa koutei ni hata o tate-ta.
students TOP campus ALL flag ACC stand-PAST
Students stood the flag in/on the campus.

*I-linking

(63)
*Otouto wa mobiiru de tenjou o tsurushi-ta.
brother TOP mobile INST ceiling ACC hang-PAST
*My brother hung the ceiling with a mobile.

(64) *Gakuseitachi wa   koutei o   hata de   tate-ta.
      students   TOP campus ACC flag INST stand-PAST
      *Students stood the campus with the flag.

Subclass 2 takes FA-linking as FNI, indicating only the figure's spatial configuration without the reference point. On the other hand, subclass 1 omits the ground in a limited context, where we can imagine what sort of ground is used (example (65)). This is because in order to stand something we do not necessarily need something special to stand it on; we can stand an entity on the ground. However, to hang or suspend an entity, we need a certain tool or condition. That is, the figure and ground are more semantically bound in subclass 1 than in sublcass 2.

FA-linking
(subclass 1)

(65) Haha   wa   sentakumono o   tsurushi-ta.
      mother TOP washing   ACC hang-PAST
      My mother hung out the washing.

(subclass 2)

(66) Otouto wa   tamago o   tate-ta.
      brother TOP egg   ACC stand-PAST
      My brother stood an egg on end.

5.4.7.4. Causal and aspectual patterns

The agent acts on the figure and locates it at the ground with a certain spatial configuration. Without this unique characteristic, this type of verb is similar to type 1 verbs, causally and aspectually. They both take the retrospective reading with *te-iru*. They may both get the activity reading in a runup achievement construal with *te-iru* referring to the agent's efforts to attach or locate entities to something in a certain configuration or in an accomplishment construal with a derived verbal scale reading. That is, in both types the verbs conventionally specify the final state of the figure rather than its process of changing, which gives an achievement construal.

te-iru:
(subclass 1)

(67) Otouto wa mobiiru o tenjou ni/kara tsurushi-te-iru.
brother TOP mobile ACC ceiling ALL/ABL hang-TE-IRU
My brother has hung/suspended a mobile from the ceiling.
(My brother has attached a mobile to the ceiling.)
My brother is trying to hang a mobile from the ceiling. (for L-linking only).

(subclass 2)

(68) Gakuseitachi wa koutei ni hata o tate-te-iru.
students TOP campus ALL flag ACC stand-TE-IRU
Students has stood the flag in/on campus.
Students are trying to stand the flag in the campus.

What is interesting is that the ablative (*kara*) version of subclass 1 does not get the activity in progress reading even in the runup achievement construal. It suggests that the location is construed as the source from which the figure's state of maintaining the vertical position starts rather than the place where the efforts of attaching the figure to the ground are taking place. On the other hand, L-linking merely refers to an event of putting (attaching) an entity into a location with the extra meaning of the spatial configuration. That is, the ground can be construed as the place the figure has a spatial contact with as well as the place where it is attached and thus can be construed as the place where the agent is acting on it (as type 1 verbs) [11].

5.4.7.5. Semantic representations

The semantic structure of subclass 1 (L-linking) is represented in the following Figure 16, in which *ni* and *kara* are represented as interchangeable. It should be noted that I describe the spatial position in the labelling of Figure 16 on the right hand side to

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[11] Subclass 2 cannot have the ablative linking. Though situations denoted by subclass 1 and subclass 2 involve an inactive force at a certain point on the ground going against the natural force of gravity to maintain the configuration, only subclass 1 allows the ablative linking as well as the more conventional allative linking (L-linking) for verbs of putting. We may argue that the place of contact is different. For subclass 1, it is the topmost part of the figure that has contact with the ground. On the other hand, it is the lowest part of the figure for subclass 2. I shall leave the reason why subclass 1 allows the ablative linking for future study.

differentiate it from type 1 'put' *oku* verbs.

Figure 16. achievement construal of L-linking of tsurusu *'hang' in (60)*
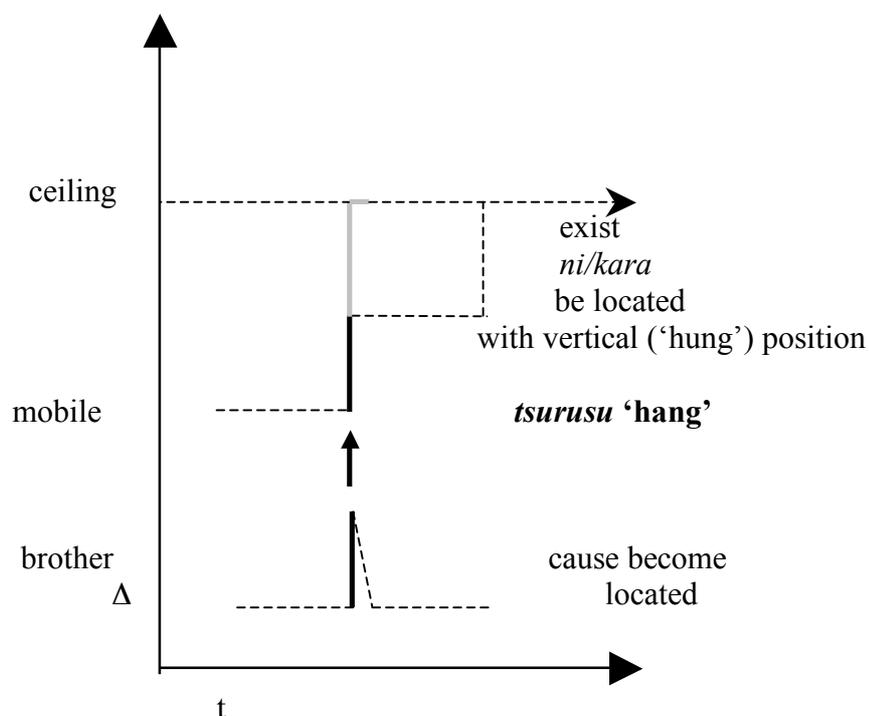
5.4.8. Type 8 *Tsumu* 'load' verbs

5.4.8.1. Members

The following are the three members of this verb type:

   tsumu 'load', *noseru* 'load', *tousai-suru* 'mount'

5.4.8.2. Semantics

The first two verbs above refer to an event of loading an entity onto a means of transportation such as a truck or a ship. *Tousai-suru* 'mount' is used for an extended sense of loading such as loading/installing a certain performance onto/into the ground (e.g. loading software into a computer, installing the hi-fi system into the car.)

5.4.8.3. Syntactic patterns

Type 8 verbs take L-linking but not I-linking. They do not allow a source phrase

instead of a goal phrase. A path pattern is only very marginally acceptable.

L-linking

(69) Watashitachi wa John no kuruma ni kagu o tsun-da.
we TOP John GEN car ALL furniture ACC load-PAST
We loaded the furniture onto John's car.

*I-linking

(70) *Watashitachi wa John no kuruma o kagu de tsun-da.
we TOP John GEN car ACC furniture INST load-PAST
We loaded John's car with furniture.

*source-phrase

(71) *Watashitachi wa John no ie kara kagu o tsun-da.
we TOP John GEN house ABL furniture ACC load-PAST
We loaded furniture from John's house.

??path-pattern

(72) ??Watashitachi wa ie kara kuruma ni kagu o tsun-da.
we TOP house ABL car ALL furniture ACC load-PAST
We loaded furniture from the house to the car.

What is peculiar with this type of verb is that the ground (the transportation means)

can appear as the subject in the *Te-iru* construction, referring to a present situation

where the ground has the figure inside it. In this case *te-iru* has the resultative reading.

(73) John no kuruma wa kagu o tsun-de-iru.
John GEN car TOP furniture ACC load-TE-IRU
John's car is loaded with furniture.

I call the above construction as **Ground-subject linking (GS-linking) construction**

with *te-iru*.

5.4.8.4. Causal and aspectual patterns

With this type of verb, the agent moves the figure and puts it onto the ground.

Aspectually, the verbs have the activity in progress reading with *te-iru*, and that

activity can be an accomplishment as the following sentences show.

194

(74) Karera wa   John no   kuruma ni   kagu   o   tsun-de-iru.
        they   TOP John GEN car   ALL furniture ACC load-TE-IRU
        They are loading funiture onto John's car. (activity in progress)

(75) Karera wa   John no   kuruma ni   kagu   o   tochuumade tsun-da.
        they   TOP John GEN car   ALL furniture ACC halfway   load-PAST
        They half loaded the funiture into John's car.

Here, furniture can be interpreted either as singular or plural. In both cases, the activity in progress reading and the adverbial phrase are possible.

However, *tou.sai-suru* 'mount' conventionally favours the achievement reading, as the event denoted by the verb is normally more 'abstract' loading. It is at best interpreted as runup achievement with the adverbial support of *ima* 'now':

(76) Ani   wa   ima shinsha ni   haifai o   tou.sai-shi-te-iru.
        brother TOP now new.car ALL Hi-Fi ACC mount-TE-IRU
        My brother is now trying to install the Hi-Fi into his new car.

5.4.8.5. Semantic representations

The following are the semantic structures for *tsumu* with L-linking and with the GS-pattern with *te-iru*.

Figure 17. accomplishment construal of L-linking of tsumu *'load' in (69) and (74)*
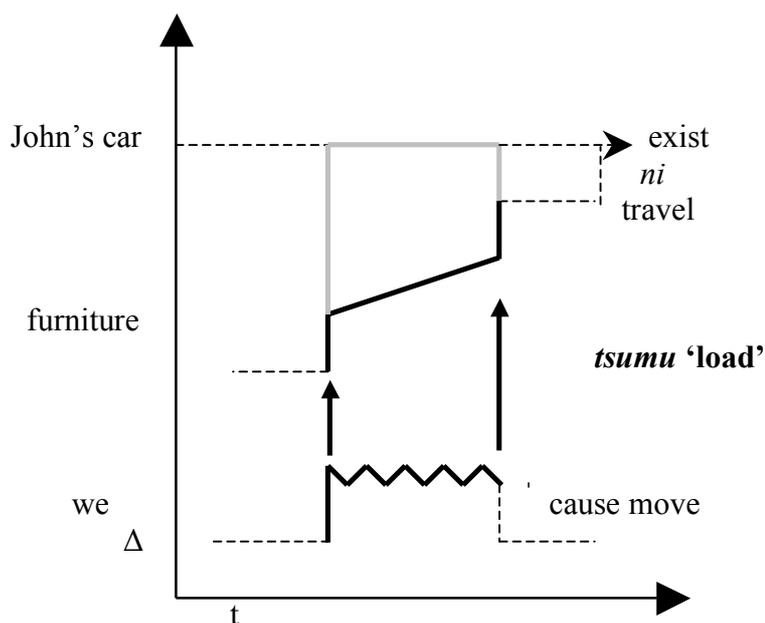
Figure 18. semantic structure for GS-linking of tsumu *'load' in (73)*
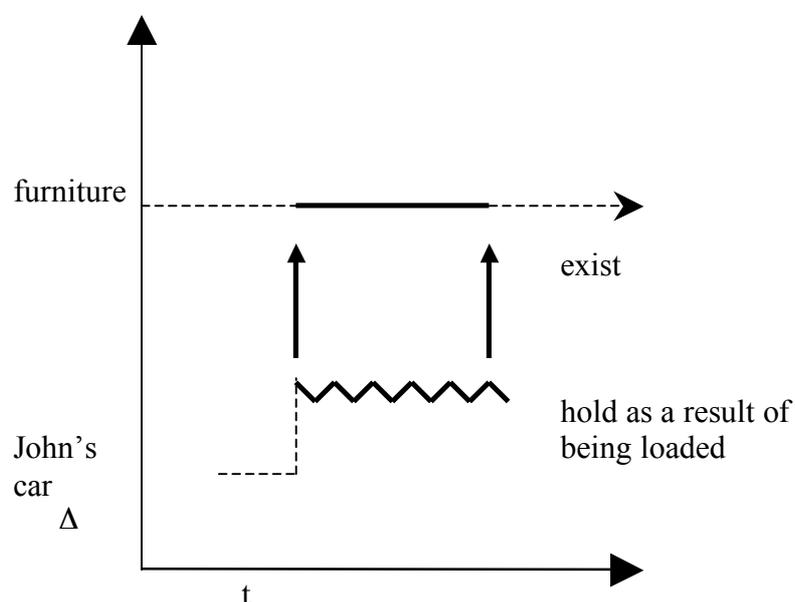
A holding event implies unprototypical force dynamic relations in that the force being applied does not cause the change of motion or state though it is definitely applied on the direct object by the subject ('inactive action'). Being non-prototypical, there is a cross-linguistic variation concerning the encoding of the event (Croft 2000, §3.5.1). In Japanese, the holding-held relation is encoded as a result state of a particular action (in this case 'loading'); *te-iru* refers to the resultative state of the car's holding furniture inside after it has been loaded with furniture. In the representation, however, the force dynamic relations between the two participants is still illustrated by the two solid arrows which represent the extended causal link of the inactive force.

5.4.9. Type 9 *Oou* 'cover' verbs

5.4.9.1. Members

Members of this class are exemplified as follows:

> verbs of covering:
> > *oou* 'cover'
> verbs of surrounding:
> > *kakomu* 'surround', *kakou* 'enclose', *tori-maku* 'surround'
> verb of blocking:
> > *husagu* 'block'

5.4.9.2. Semantics

The verbs of this category relate to covering a surface of an entity with something else (verbs of covering), to enclosing something within something else (verbs of surrounding), and to filling a place with something (verb of blocking).

5.4.9.3. Syntactic patterns

These verbs take I-linking and not L-linking. Some verbs may allow the omission of the instrumental phrase in certain contexts, in which case they show GA-linking.

I-linking
oou 'cover'

(77)
> John wa aisha o shiito de oot-ta.
> John TOP own.car ACC sheet INST cover-PAST
> John covered his own car with a sheet.

kakou 'surround'

(78)
> Chichi wa ikegaki de ie o kakot-ta.
> father TOP hedge INST house ACC surround/enclose-PAST
> Father surrounded the house with a hedge.

*L-linking
oou 'cover'

(79)
> *John wa aisha ni shiito o oot-ta.
> John TOP own.car ALL sheet ACC cover-PAST
> *John covered a sheet on his own car.

197

kakou 'surround'

(80)
    *Chichi wa   ikegaki o   ie   ni   kakot-ta.
     father TOP hedge ACC house ALL surround/enclose-PAST
    *Father enclosed the hedge to a house.

GA-linking (some)

(81)
    John wa   mimi o   husai-da.
    John TOP ear   ACC block-PAST
    John covered his ears.

Verbs of this type also appear with **Instrumental-Subject linking (IS-linking)**, which means that the covering object, surrounding object or blocking object can appear as the subject, yielding transitive two-argument linking with subject and direct object. However, Japanese stylistically disfavours using inanimate subjects such as a covering or surrounding object. Among inanimate entities, a natural phenomenon is most likely to be in the subject position. The *Te-iru* form (84) sounds slightly better as it can refer to a resultative state; because the inanimate subject is not construed as causing change, it sounds more natural. Stylistically, the passive form as in (85) is slightly more natural than (82):

IS-linking:
oou 'cover'

(82)
    Hukai kiri ga   machi o   oot-ta.
    deep fog NOM city   ACC cover-PAST
    Deep fog covered the city.
    (Fog is a covering entity.)

kakou 'surround'

(83)
    Ikegaki ga   sono ie   o   kakon-de-iru.
    hedge   NOM the   house ACC enclose-TE-IRU
    The hedge surrounds the house.
    (Hedge is a surrounding entity.)

***Te-iru* plus IS-linking:**

(84)
    Hukai kiri ga   machi o   oot-te-iru.
    deep fog NOM city   ACC cover-TE-IRU
    The city is covered with deep fog.

Passive form:

(85)
    Machi wa   hukai kiri ni oow-are-ta.
    city   TOP deep fog PA cover-PASS-PAST
    The city got covered with deep fog.

5.4.9.4. Causal and aspectual patterns

The agent acts on the figure (covering object, surrounding object, filling object) to cover, surround, and fill another entity, which is the ground. The aspectual pattern is either punctual or extended. For example, the verb *oou* 'cover' has, at least, two patterns.

(86)
John   wa   ryoute   de   kao o   oot-te-iru.
John   TOP   both.hands INST face ACC   cover-TE-IRU
John covered his face with his hands. (resultative)

(87)
John   wa   aisha   o   shiito de   oot-te-iru.
John   TOP   own.car ACC   sheet INST   cover-TE-IRU
John is covering his own car with a sheet. (activity in progress)

Example (86) is punctual because covering one's face with one's hands does not take much time in a normal situation; it cannot be construed as extended over time. Moreover, John is perceptible as the agent who covers his face (we see John's covering his face and, of course, know that he is the one in charge of the event). This favours the resultative reading with *te-iru*. On the other hand, in (87), it is possible to construe the event as of the accomplishment type; the surface of the car is a verbal scale that measures out the whole event. The following examples embody the *tochuumade* 'halfway' and *sukoshizutsu* 'little by little' test:

(88)
John   wa   aisha   o   shiito de   tochuu-made oot-ta.
John   TOP   own.car ACC   sheet INST   halfway   cover-PAST
John covered his own car with a sheet halfway.

(89)
John   wa   aisha   o   shiito de   sukoshizutsu oot-ta.
John   TOP   own.car ACC   sheet INST   little.by.little cover-PAST
John covered his own car with a sheet gradually.

'Little by little' modifies a part of the car which is being covered.

5.4.9.5. Semantic representations

I would say that the aspectual pattern for the verbs of this category can be either punctual or extended. The situations they denote can be construed as accomplishments with the adverbs 'little by little' and 'halfway'. The following Figures show representations of the verb *oou* to cover with its various types of linking. Figure 19 shows a representation of the achievement version with I-linking, Figure 20 that of the accomplishment version with I-linking, Figure 21 that of the achievement version with GA-linking and Figure 22 that of the verb with IS-lilnking.

Figure 19: achievement construal of I-linking of oou *'cover' as in (86) (without* te-iru*)*
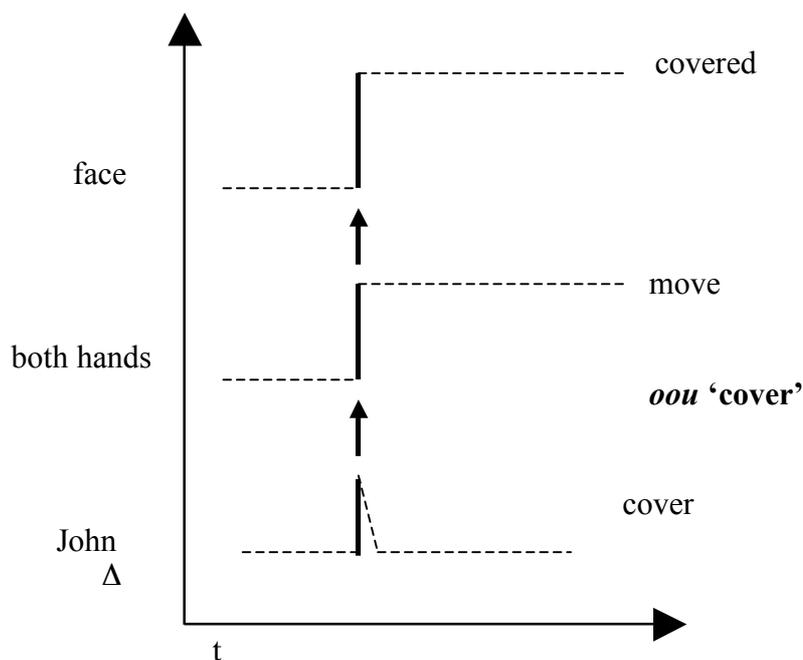
Figure 20. accomplishment construal of I-linking of oou *'cover' in (77) and (87)*
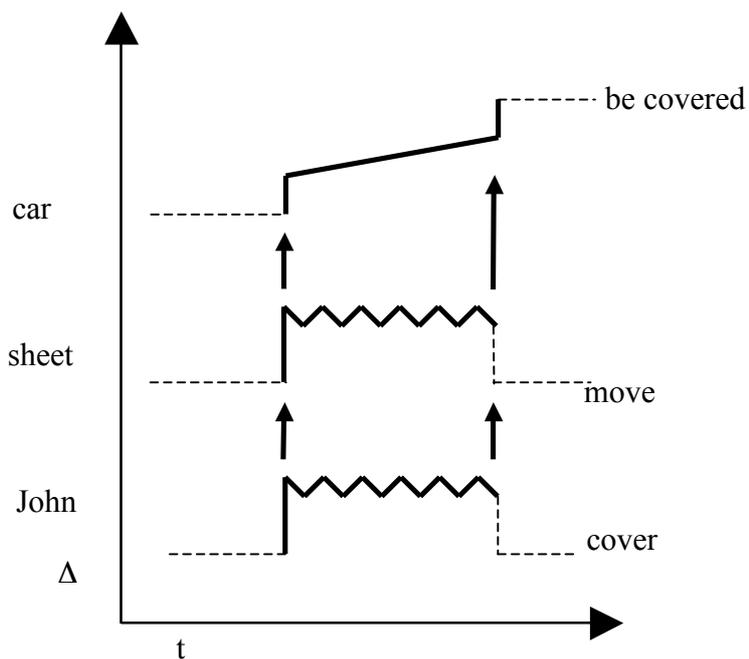
Figure 21. achievement construal of GA-linking of oou *'cover' in (81)*
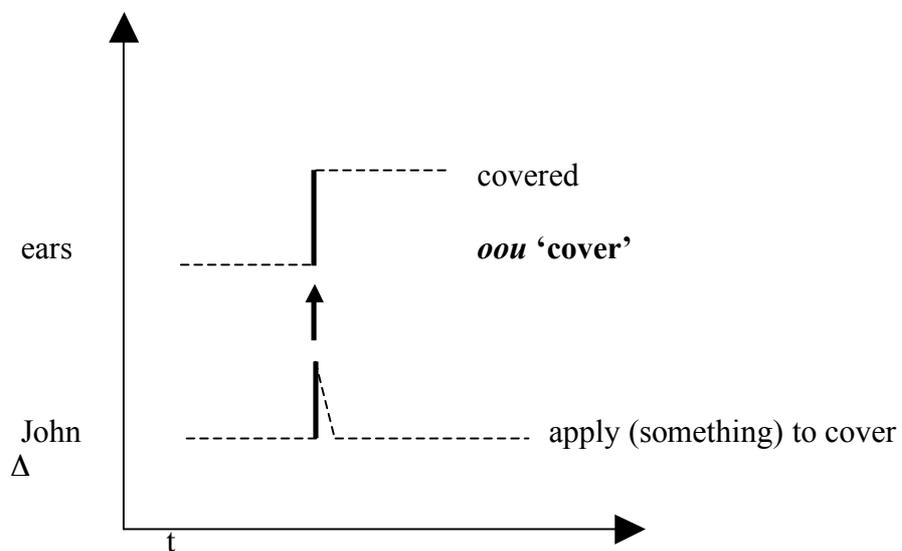
Figure 22. achievement construal of IS-linking of oou *'cover' in (82)*
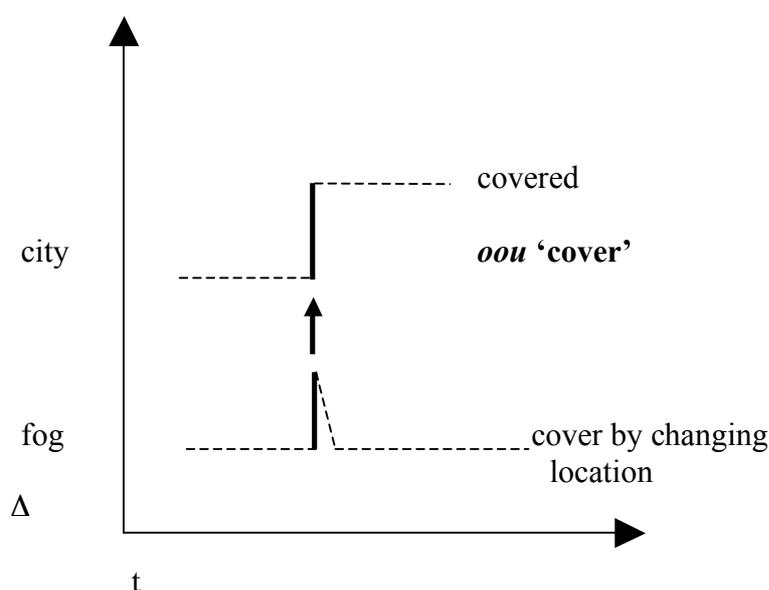
5.4.10. Type 10 *Yogosu* 'dirty' verbs

5.4.10.1. Members

The following are some members of the verb type:

> verbs of contaminating; *yogosu* 'dirty', *kegasu* 'dirty, soil'
> verbs of dyeing; *someru* 'dye'
> verbs of covering; *ho.sou-suru* 'pave surface', *to.sou-suru* 'paint, coat with paint'
> verbs of decorating; *sou.shoku-suru* 'decorate'

5.4.10.2. Semantics

These verbs denote an event where the ground can be interpreted to be affected by having the figure positioned on it by the agent. The ground changes from not being dirty to dirty in *yogosu* 'dirty', it changes color in *someru* 'dye', or changes from not being to being covered/decorated. In that way, these can be thought of as change of state verbs. They are also used in the metaphorical sense of causing a change of state by disgracing somebody (*yogosu* 'dirty') or being involved with crime (*someru* 'dye').

5.4.10.3. Syntactic patterns

Verbs of this type do not take L-linking but do take I-linking.

*L-linking

(90)
    *Patrick wa   atarashii zubon   ni   wain o   yogoshi-ta.
    Patrick TOP new   trousers ALL wine ACC stain-PAST
    *Patrick stained wine to his new trousers.

I-linking

(91)
    Patrick wa   atarashii zubon   o   wain de   yogoshi-ta.
    Patrick TOP new   trousers ACC wine INST stain-PAST
    Patrick stained his new trousers with wine.

(92)
    Chichi wa   kuruma o   penki de   to.sou-shi-ta.
    father TOP car   ACC paint INST covering-do-PAST
    My father covered his car with the paint.

Often, the figure (what is put on) is omitted in FNI, in which case they manifest GA-linking. The following examples illustrate:

GA-linking

(93)
    Patrick wa   atarashii zubon   o   yogoshi-ta.
    Patrick TOP new   trousers ACC stain-PAST
    Patrick stained his new trousers.

(94)
    Chichi wa   kuruma o   to.sou-shi-ta.
    father TOP car   ACC covering-do-PAST
    My father covered his car (with the paint).

(95)
    Jacqui wa   kami o   some-ta.
    Jacqui TOP hair   ACC dye-PAST
    Jacqui dyed her hair.

However, unlike type 9 *oou* 'cover' verbs, they do not appear in an IS-linking pattern, which differentiates the two types even though semantically they refer to similar events.

5.4.10.4. Causal and aspectual patterns

The agent acts on the figure, which as a result is to be located on the ground. Aspectually, there are two types. *Yogosu* 'dirty' (verbs of contaminating) favours the achievement reading and *someru* 'dye' or other verbs of decorating and covering,

favour the accomplishment reading in the most conventional scenario they encode. People do not make something dirty on purpose, so the action of the verb is seldom interpreted as an activity or accomplishment, though, of course, we can think of a situation where somebody is deliberately making something like a wall dirty by smearing mud on it (in which case, it is possible to have the activity in progress reading of iterated achievements). The verb, interestingly, does not necessarily entail that the ground is fully covered with something dirty. For example, only one stain is enough to '*yogosu*' ('dirty') the ground. It would be better to say that the verb denotes the change of state from cleanliess to non-cleanliness. *Yogosu* 'dirty' gets the retrospective reading with *te-iru*, as the following example shows:

(96)
Patrick wa atarashii zubon o wain de yogoshi-te-iru.
Patrick TOP new trousers ACC wine INST stain-TE-IRU
Patrick has stained his new trousers with wine.

Situations denoted by *someru* 'dye' and other 'painting to cover' verbs are enacted by a volitional agent in a non-marked situation, so giving the activity reading[12]. Because of the nature of event the verbs encodes, they are conventionally construed as accomplishment. Dyeing hair or covering a car with paint has a natural endpoint, which suggests delimitedness.

(97)
Jacqui wa kami o akaku some-te-iru.
Jacqui TOP hair ACC red dye-TE-IRU
Jacqui is dying her hair. (activity in progress reading)
Jacqui has dyed her hair. (Her hair is red now). (resultative reading).

(98)
Jacqui wa kami o sukoshizutsu some-ta.
Jacqui TOP hair ACC little.by.little dye-PAST
Jacqui dyed her hair little by little.

---

[12] In the example of dyeing one's hair, it can also have the resultative reading with *te-iru* as the agent is the possessor of hair, so, the subject manifests the perceptible result of dyeing. This has two senses, that of changing color (focusing on the change to the final state) and that of applying colour (focusing on the activity of changing colour). The former favours the resultative reading and the latter favours the activity in progress reading with *te-iru*.

5.4.10.5. Semantic representations

The achievement reading of the I-linking of *yogosu* 'dirty' and the GA-linking of *someru* 'dye' (accomplishment) are represented as follows:

Figure 23. achievement construal of I-linking of yogosu *'dirty' in (91)*
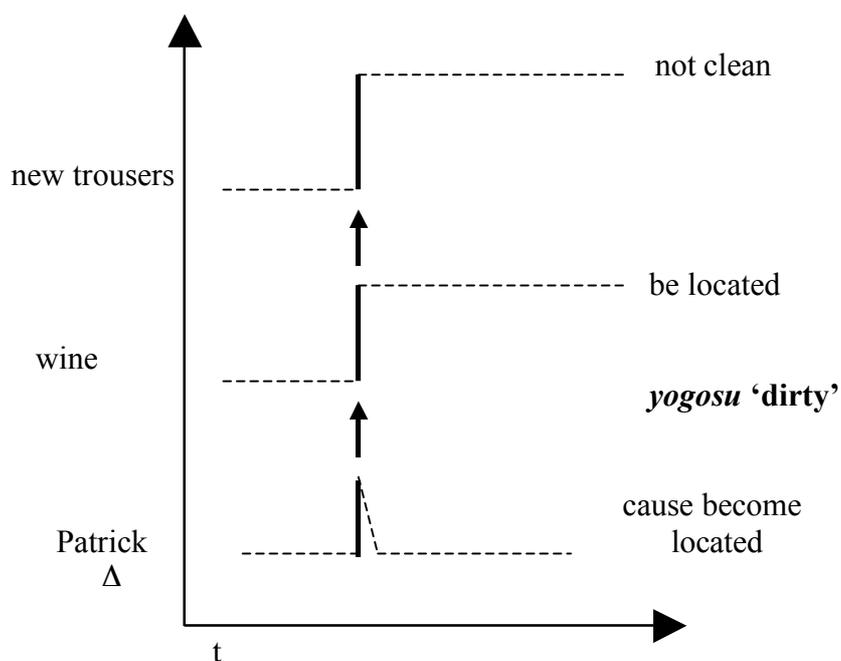
Figure 24. accomplishment construal of GA-linking of someru *'dye' in (95)*
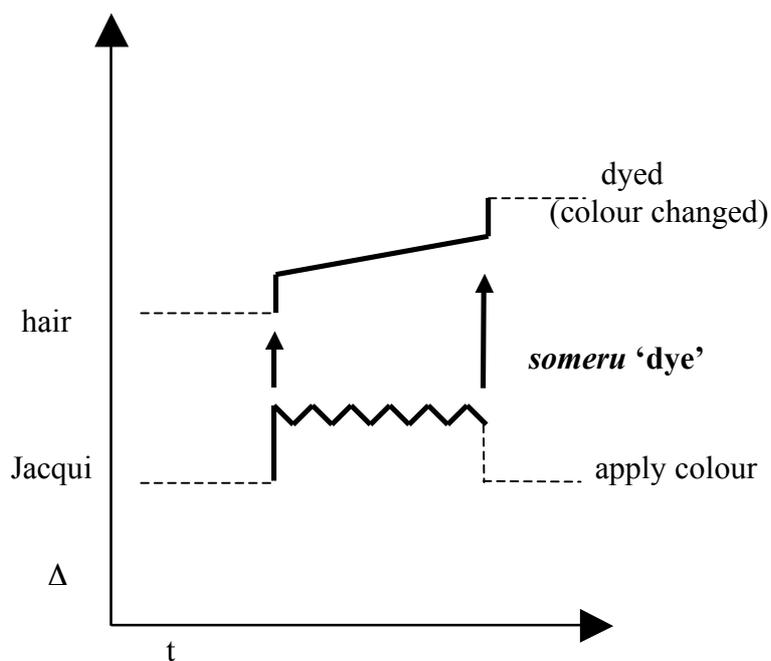
5.4.11. Type 11 *Kazaru* 'decorate' verbs: verbs of locative alternation

5.4.11.1. Members

The following are the members of this verb type:

  kazaru 'decorate', *nuru* 'smear', *tsumeru* 'pack', *mitasu* 'fill'

5.4.11.2. Semantics

Matsumoto (1997: 172) classifies the verbs of this category as those which incorporate/entail the change of state caused by the event of caused-motion; as a result of the motion of the figure, its attachment to the goal has resulted. The semantic properties of the four verbs vary. They relate to decorating, covering surfaces, putting an entity somewhere and filling a container. However, they share the important syntactic behaviour of allowing the locative alternation.

5.4.11.3. Syntactic patterns

Verbs of this category exhibit L-linking, I-linking, and mostly GA-linking. They do not allow source phrases nor a path pattern. The following examples illustrate:

L-linking

(99)
John wa kabe ni penki o nut-ta.
John TOP wall ALL paint ACC smear-PAST
John smeared paint on the wall.

I-linking

(100)
John wa kabe o penki de nut-ta.
John TOP wall ACC paint INST smear-PAST
John smeared the wall with paint.

GA-linking

(101)
John wa kabe o nut-ta.
John TOP wall ACC smear
John covered the wall (by painting).

*source phrase

(102)
*John wa kan kara penki o nut-ta.
John TOP tin ABL paint ACC smear-PAST
*John smeared paint from the tin.

This type of verbs is similar to the English *spray/load* verbs in that they allow the locative alternation. There are only four simple verbs (as far as I can find) having the two linking types. The number of verbs that have the locative alternation is much smaller than the number in English (cf. Levin's 9.7 class).

5.4.11.4. Causal and aspectual patterns

The agent acts on the figure to move it to the ground, which can be either a location, a surface, or a container. Causal/aspectual patterns vary according to the verbs and situations. As the semantics of this category vary and also the locative alternation is one of the central issues in this study, I shall look at the four verbs in terms of aspectual pattern and semantic representations in turn, arguing that they bear different senses according to the different linking types.

5.4.11.4.1. *Kazaru* 'decorate'

The following examples illustrate the verb with L-linking and its *te-iru* version, and that with I-linking and its *te-iru* version.

L-linking:

(103)
Jacqui wa heya ni hana o kazat-ta.
Jacqui TOP room ALL flower ACC decorate-PAST
Jacqui decorated flower(s) in her room. (=Jacqui put flowers in her room.)

(104)
Jacqui wa heya ni ip pon no hana o kazat-ta.
Jacqui TOP room ALL one CLSS GEN flower ACC decorate-PAST
Jacqui decorated a flower in her room.

(*te-iru*)

(105)
Jacqui wa heya ni hana o kazat-te-iru.
Jacqui TOP room ALL flower ACC decorate-TE-IRU
Jacqui is displyaing flowers in her room. (activity in progress)
Jacqui has decorated a flower in her room. (retrospective or resultative)
(=Jacqui has put a flower in her room.)

(106)
Jacqui wa heya ni ip pon no hana o kazat-te-iru.
Jacqui TOP room ALL one CLSS GEN flower ACC decorate-TE-IRU
Jacqui has decorated a flower in her room. (retrospective or resultative)

I-linking:

(107)
Jacqui wa heya o hana de kazat-ta.
Jacqui TOP room ACC flower ISNT decorate-PAST
Jacqui decorated her room with flowers.

(*te-iru*)

(108)
Jacqui wa heya o hana de kazat-te-iru.
Jacqui TOP room ACC flower INST decorate-TE-IRU
Jacqui is decorating her room with flowers. (activity in progress)

The L-linking of *kazaru* 'decorate' has the same effect as with *oku* 'put' verbs, giving the retrospective or resultative reading with *te-iru*[13]. The event of example (103) is ambiguous in terms of aspect as the direct object 'flower' is quite indeterminate concerning number in Japanese and does not always distinguish singular and plural as in the English language. Therefore, its *te-iru* version (105) can be interpreted as having an activity in progress reading with a multiple achievements event of putting flowers one by one bunch at a each time or the retrospective/resultative reading. However, if the number is disambiguated, specifying 'one flower' as in (104), then its *te-iru* form (106) only has the retrospective/resultative reading. This is a characteristic of achievement verbs. *Kazaru* 'decorate' in this sense manifests the 'display' sense of the type 1 verb class. The semantic representation is presented in Figure 25.

The I-linking of the verb also naturally favours the activity in progress reading with *te-iru* when the direct object is not clear about the number. A Japanese speaker would interpret *hana* 'flower(s)' as plural. What is different between L-linking and I-

linking of *kazaru* 'decorate' is the holistic interpretation of the ground in I-linking as in the English *with* variant. With I-linking, the ground is construed as 'wholly' affected; that is, it undergoes a change of state from not being beautified to being beautified. In other words, *kazaru* 'decorate' in the I-linking sense is to make the ground more beautiful by putting/displaying the figure there (the decorate sense). Therefore, at least, we intuitively interpret that there are more flowers (even leaving no space) in the room in the I-linking pattern with example (107) than in the L-linking pattern of (103). The event of example (108) is interpreted as the activity of Jacqui's engagement in the activity of applying decoration in the accomplishment type event of making the room beautiful[14].

As evidence that indicates that the ground undergoes a change of state with I-linking, I present the following examples.

(109) Jacqui wa heya ni hana o kazat-ta ga mada kazari-tari-nai.
Jacqui TOP room ALL flower ACC decorate-PAST but yet decorate-be.sufficient-not.
Jacqui displayed flowers in the room, but not yet sufficiently.

(110) ??Jacqui wa heya o hana de kazat-ta ga mada kazari-tari-nai.
Jacqui TOP room ACC flower INST decorate-PAST but yet decorate-be.sufficient-not.
Jacqui decorated the room with flowers, but not yet sufficiently.

Example (110) sounds odd compared to (109) as it implies the room became decorated after the event denoted by the first phrase.

The delimitability of the event denoted by I-linking is motivated by the *tochuumade* 'halfway' test and the incrementality of the room is verified by the *sukoshizutsu* 'little by little' test.

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[13] For the distinction between retrospective and resultative, see the discussion of *oku* 'put' verbs.

[14] *Ippon no hana* 'one flower' can be an instrumental argument with I-linking as well. It gets the punctual construal as L-linking does. However, in this case, a speaker exaggerates by saying that the flower is so gorgeous that it can effectively make the room look nice. In this punctual construal, the direct object is trivial incremental theme.

(111)
Jacqui wa heya o hana de tochuumade kazat-ta.
Jacqui TOP room ACC flower INST halfway decorate-PAST
Jacqui decorated helf the room with flowers.

(112)
Jacqui wa heya o hana de sukoshizutsu kazat-ta.
Jacqui TOP room ACC flower INST little.by.little decorate-PAST
Jacqui decorated the room with flowers little by little.
('Little by little' modifies the state of the room.)

The semantic representations of the accomplishment reading of I-linking and its finer-grained version are represented in Figure 26 and Figure 27.

Kazaru 'decorate' is the only Japanese verb which manifests the locative alternation but whose English equivalent does not.

5.4.11.4.2. *Nuru* 'smear/paint'

Nuru is to apply and put liquid (or cream) on the surface of another entity. Examples (99) and (100) show the past tense use of the verb.

L-linking (*te-iru*):
(113)
John wa kabe ni penki o nut-te-iru.
John TOP wall ALL paint ACC smear-TE-IRU
John is smearing paint on the wall. (activity in progress)

I-linking (*te-iru*):
(114)
John wa kabe o penki de nut-te-iru.
John TOP wall ACC paint INST smear-TE-IRU
John is smearing the wall with paint. (activity in progress)

(115)
John wa kabe o penki de sukoshizutsu nut-ta.
John TOP wall ACC paint INST little.by.little smear-PAST
John smeared the wall little by little with paint.
John painted the wall little by little.

L-linking with *te-iru* form gives an activity in progress reading, which encodes multiple applications of paint or one long application of paint on the wall. The semantic representation is similar to that of verbs of applying (*tsukeru*) (activity without any upper bound) (cf. Figure 12), which does not specify any concrete endpoint of the activity, or that of the accomplishment reading (cf. Figure 14) when

the wall acts as the delimiter[15]. The L-linking of *nuru* can be said to have the apply sense. The undirected activity construal of L-linking is represented in Figure 28.

On the other hand, I-linking of the verb is interpreted as an accomplishment event type since *te-iru* gives the activity in progress reading and the adverbial *sukoshizutsu* 'little by little' refers to the status of the wall and not the paint (John might have used a huge amount of paint for one application to cover a small area of the wall)[16]. In this case, the purpose of performing the act is to affect the wall and not only to apply the paint. The wall is represented as undergoing the transition (change) in Figure 29. I-linking has the cover (with paint) sense.

Interestingly, I-linking is only applied when an event refers to covering surfaces to change the state of the ground. It cannot be used to refer to applying cream to the face or spreading butter on toast, for example, because these events do not change the nature of the face or the toast. These situations only allow the L-linking of *nuru* 'smear'.

(116)
*I-linking
*Jacqui wa   kao o   kuriimu de   nut-ta.
 Jacqui TOP face ACC cream   INST smear-PAST
 (= Jacqui applied face with cream.)

---

[15] The wall acts as a delimiter as a normal situation of smearing the paint on the wall is to give it a coating or colour and not to consume paint. When the wall is covered, the event will be finished.

[16] *Sukoshizutsu* 'little by little' can modify the L-linking version of *nuru* 'smear'.

(i)
John wa   kabe ni   penki o   sukoshizutsu nut-ta.
John TOP wall ALL paint ACC little.by.little smear-PAST
John smeared the paint little by little on the wall.

Unlike in example (115), it is paint that is consumed little by little, and this results in the figure being a verbal scale in L-linking as in *sosogu* 'pour', *haru* 'fill', *tsukeru* 'spread' from the previous examples.

5.4.11.4.3. *Tsumeru* 'pack/cram'

The following are examples of *tsumeru* 'pack':

L-linking:

(117)
Julie	wa	nimotsu	o	suutsukeesu	ni	tsume-ta.
Julie	TOP	stuff	ACC	suitcase	ALL	pack-PAST

Julie packed her stuff into the suitcase.

(118)
Kare	wa	kabe	no	ana	ni	shinbunshi	o	tsume-ta.
he	TOP	wall	GEN	hole	ALL	newspaper	ACC	cram-PAST

He crammed newspaper into a hole in the wall.

I-linking:

(119)
Kare	wa	kabe	no	ana	o	shinbunshi	de	tsume-ta.
he	TOP	wall	GEN	hole	ACC	newspaper	INST	cram-PAST

He filled a hole in the wall with newspaper.

The events denoted by L-linking of the verb entail changes of the location of the figure. It can give an accomplishment construal. *Tsumeru* entails that entities are moved to a container in a way that there is no unnecessary space between them[17] or that they are simply put into the container nicely/properly. Unlike with *nuru* 'smear', the main purpose of packing the figure into the ground in example (117) is to carry the stuff around and not to fill the suitcase, and in that way, normally the agent already knows how much stuff he/she is going to put in, so, there is telicity in the event. Alternatively, at least, there is a natural boundary for the container. The container only has a limited space and the end of the space marks the end of the action. Unlike in the case of applying paint on the wall, the action of packing stuff into the suitcase cannot be repeated an infinite number of times. The *te-iru* version and the *sukoshizutsu* 'little by little' test reveal that the figure (stuff) is a verbal scale in the accomplishment reading. In example (121), 'little by little' modifies the amount of stuff.

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[17] L-linking of the verb does not strictly denote that the container should be filled though it is an implication. An example to support this is that it is possible to utter a Japanese sentence equivalent to 'I packed my stuff into the suitcase, but there is still some space left' in English.

(120) Julie wa nimotsu o suutsukeesu ni tsume-te-iru.
Julie TOP stuff ACC suitcase ALL pack-TE-IRU
Julie is packing her stuff into the suitcase. (activity in progress)

(121) Julie wa nimotsu o suutsukeesu ni sukoshizutsu tsume-ta.
Julie TOP stuff ACC suitcase ALL little.by.little pack-PAST
Julie packed her stuff into the suitcase little by little.

The previous example (118) is also modified with sukoshizutsu 'little by little' as the following example illustrates:

(122) Kare wa kabe no ana ni shinbunshi o sukoshizutsu tsume-ta.
he TOP wall GEN hole ALL newspaper ACC little.by.little cram-PAST
He crammed newspaper little by little to a hole on the wall.

Again, the figure is still a verbal scale since it is the newspaper which is thought to be put little by little in (122). As in the above examples (120) and (121), the space of the ground is limited, which naturally delimits the figure. The representation of the L-linking of *tsumeru* 'pack' is shown in Figure 30.

Compared to L-linking, the number of contexts where I-linking is allowed is limited. It is used only when the purpose is to fill something up (which is normally unfavorable) like a space which is not supposed to be there (example (119) above). Another example that also allows both linkings is filling a tyre with air. As the favorable/normal state of the tyre is to be filled with air, the situation is realised by I-linking with *te-iru* as well as by L-linking[18]. Self-evidently, the I-linking in these examples means that the ground is construed as a holistic theme; its space is being filled. *Sukoshizutsu* 'little by little' modifies the ground, not the figure.

(123) Kare wa kabe no ana o shinbunshi de sukoshizutsu tsume-ta.
he TOP wall GEN hole ACC newspaper INST little.by.little cram-PAST
He filled a hole on the wall with newspaper little by little.

---

[18] Packing the stuff into the suitcase can be rephrased into I-linking (though not naturally). However, acceptability is lower in this case and we need a special context where the purpose of the situation is to fill the suitcase.

The representation of I-linking is shown in Figure 31. We could say that L-linking of the verb has the putting-into sense and I-linking has the filling sense.

5.4.11.4.4. *Mitasu* 'fill'

The following are examples of *mitasu* 'fill' with L-linking and I-linking:

L-linking:
(124)
John wa koppu ni mizu o mitashi-ta.
John TOP cup ALL water ACC fill-PAST
John poured water into the cup to the full.

I-linking:
(125)
John wa koppu o mizu de mitashi-ta.
John TOP cup ACC water INST fill-PAST
John filled the cup with water.

Semantically, this verb is similar to *tsumeru* 'pack' above in that the ground which is used with the verb sets the natural boundary for the figure. A subtle difference is that *mitasu* 'fill' requires the ground to be filled in both linkings. I would still analyse the verb in the same way as *tsumeru*, however; the figure is holistic theme in L-linking and the ground is a holistic theme in I-linking. In both casese, *sukoshizutsu* 'little by little' modifies the direct object as illustrated below:

(126)
John wa koppu ni mizu o sukoshizutsu mitashi-ta.
John TOP cup ALL water ACC little.by.little fill-PAST
John poured water into the cup to the full little by little.
(Water was poured gradually.)

(127)
John wa koppu o mizu de sukoshizutsu mitashi-ta.
John TOP cup ACC water INST little.by.little fill-PAST
John filled the cup with water little by little.
(The cup was filled gradually.)

The difference between these two examples is subtle because the two acts of pouring water and filling the cup are so close; it is difficult to imagine a context where pouring a large amount of water will gradually fill a cup. Thus, this is a significant example to show that a difference in linking reflects a different construal of the same event. I

would say that L-linking of the verb gives the pouring-to-the-full sense and I-linking gives the filling sense. The representations are similar to those for *tsumeru* 'pack'.

5.4.11.5. Semantic representations

The following are the semantic representations of *kazaru* 'decorate', *nuru* 'smear' and *tsumeru* 'pack'.

Figure 25. achievement construal of L-linking of kazaru *'decorate' in (103)*
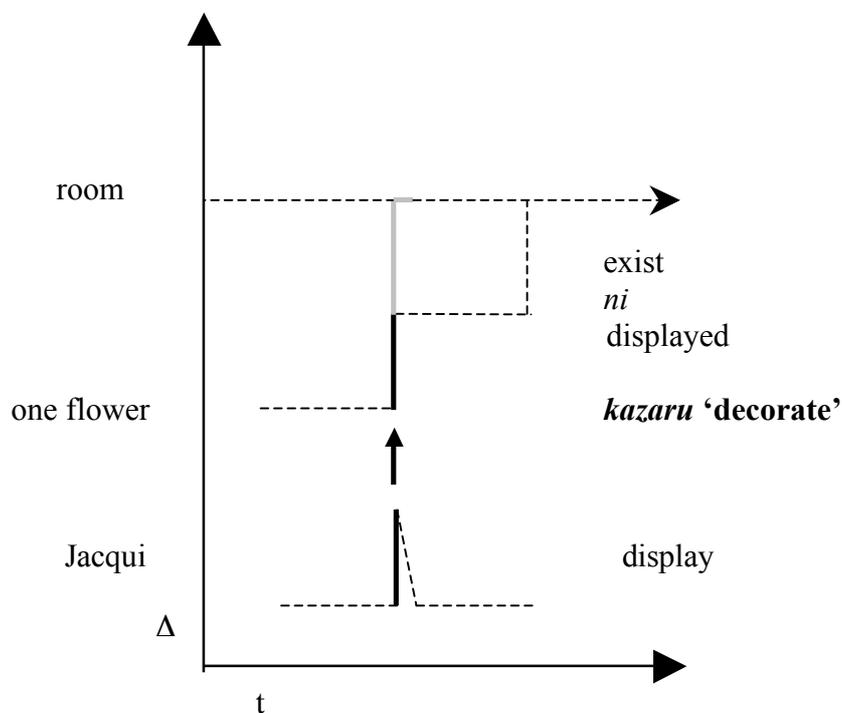
Figure 26. accomplishment construal of I-linking of kazaru *'decorate' in (107)*
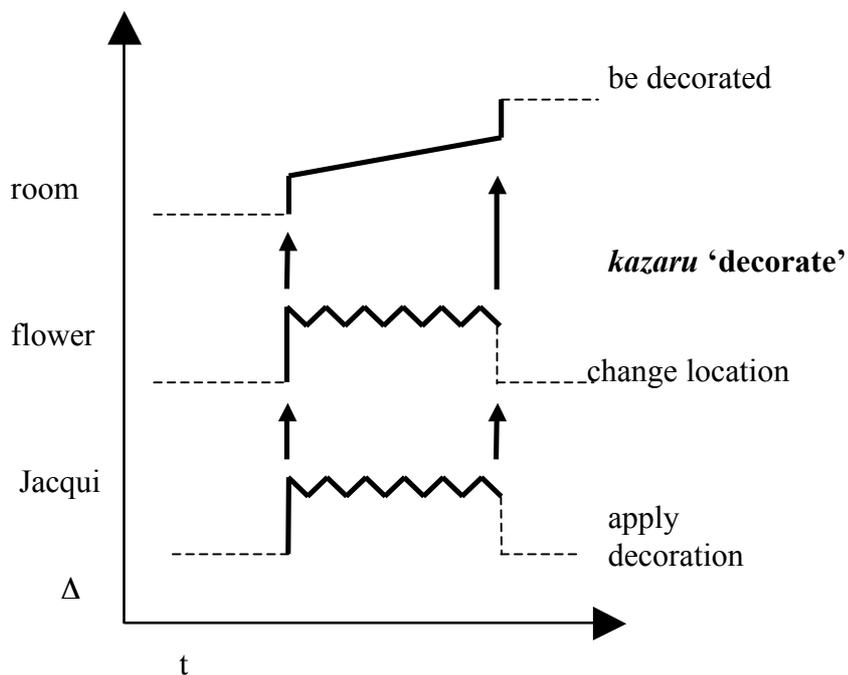
Figure 27. fine-grained[19] version of figure 26

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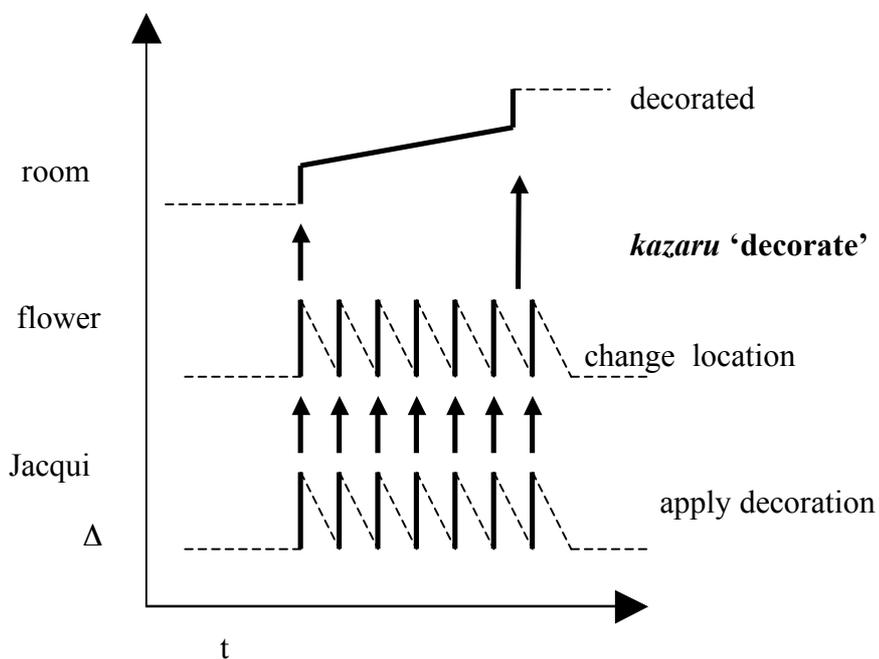
[19] In this figure, the activity contours of Jacqui and the flowers are disintegrated into multiple achievement events.

Figure 28. undirected activity construal of L-linking of nuru *'smear' in (99)*
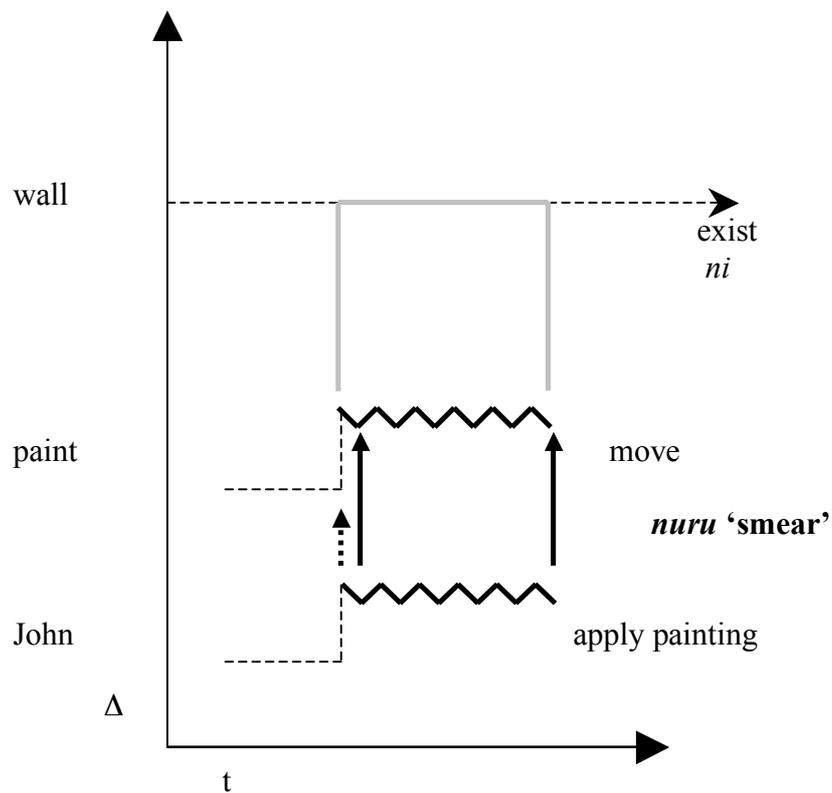
Figure 29. accomplishment construal of I-linking of nuru *'smear' in (100)*
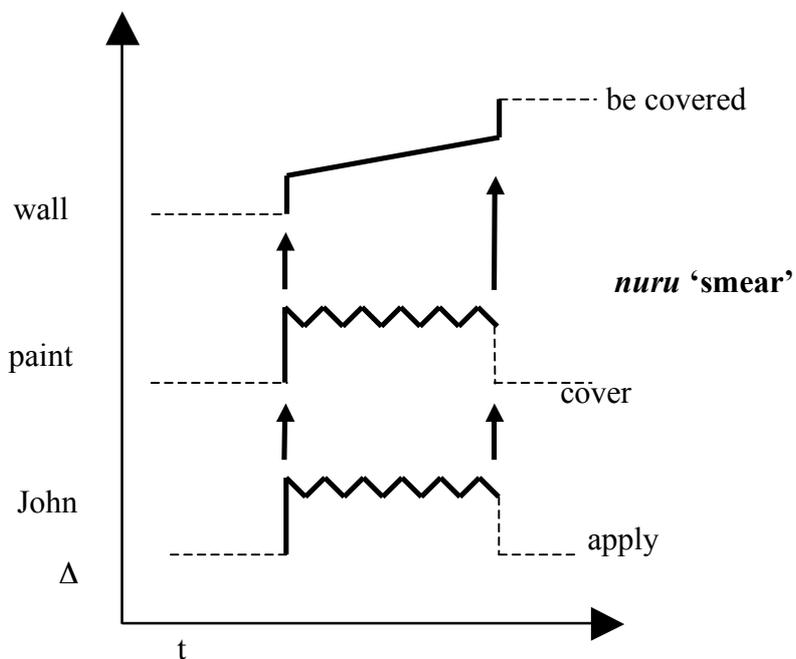
Figure 30. accomplishment construal of L-linking of tsumeru *'pack' in (117) and (121)*
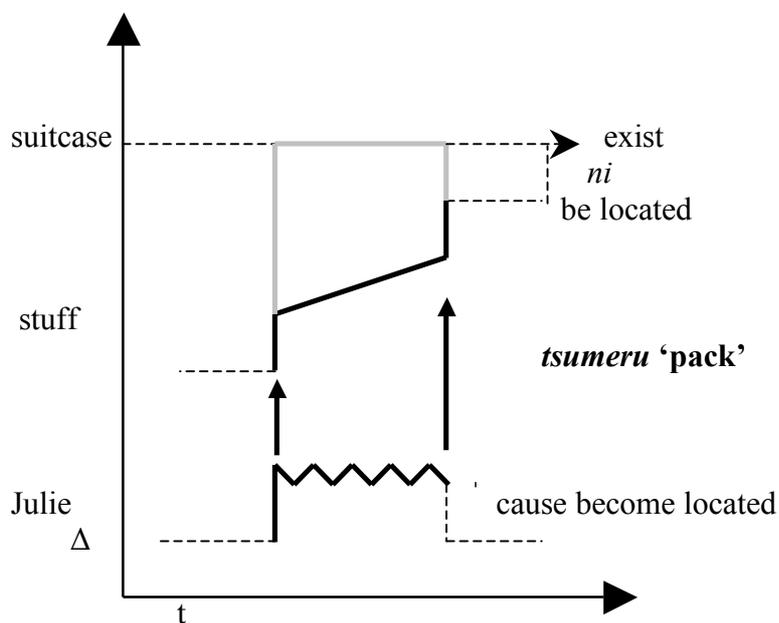
Figure 31. accomplishment construal of I-linking of tsumeru *'pack' in (119) and (122)*
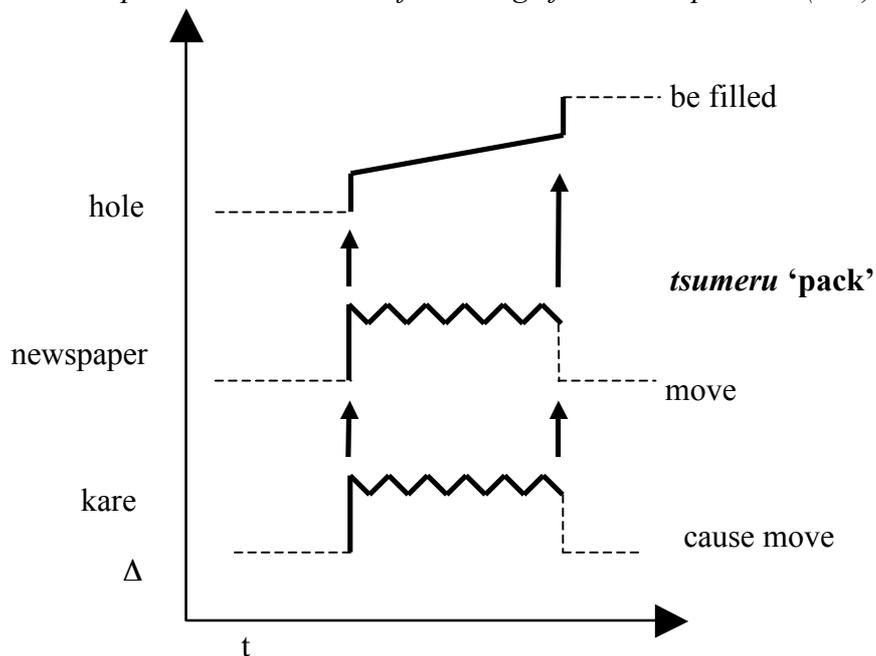
Japanese has many fewer verbs that allow the two linkings. The four verbs above allow the locative alternation, and I have mentioned that they have differences in meanings according to the two linkings. Here is a summary of them:

Table 1. Summary of different senses between L-linking and I-linking

	L-linking (basic aspectual pattern)	I-linking (basic aspectual pattern)
kazaru 'decorate'	display sense (achievement)	decorate sense (accomplishment)
nuru 'smear'	apply sense (activity)	cover sense (accomplishment)
tsumeru 'pack'	put-into sense (accomplishment)	fill sense (accomplishment)
mitasu 'fill'	pour-to-the-full sense (accomplishment)	fill sense (accomplishment)

The verbs denote different events. However, what is common is that with I-linking the ground undergoes the change of state, and the more conventional construal in these circumstances is accomplishment. Also the ground serves as a verbal scale. The change of state of the ground naturally sets the telicity either in a concrete way or in an abstract way. By 'concrete', I refer to the last three verbs where the telicity can be easily seen in the ground (we can objectively see that the wall is painted, the container is filled). By 'abstract' I refer to the case of *kazaru* 'decorate', where the completion of decoration can be subjective depending on people's point of view. The aspectual construal of L-linking varies. The reason why *tsumeru* 'pack' and *mitasu* 'fill' have an accomplishment reading with L-linking is that the space of the ground (the container or the location) can set the endpoint to the amount of the figure. Both the figure and the ground can be associated with a verbal scale and the subtle difference between the two linkings is ascribed to the fact of which argument holistic theme is assigned to. These two verbs are the ones which directly follow the semantic representation of the *spray/load* verbs in English.

Moreover, we have seen that there are fewer contexts where I-linking is allowed than were L-linking is allowed[20]. That is, L-linking is used more neutrally and is a

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[20] This is consistent with the general fact that Japanese has many more verbs which allow L-linking

default case, while I-linking is rather a special case. This is explained by saying that I-linking requires not only that the figure is moved to the ground but also that the ground undergoes some change of state, which is an additional meaning. This additional meaning makes I-linking more special and limits the contexts where it occurs[21].

5.4.12. Type 12 *Tsutsumu* 'wrap' verbs

5.4.12.1. Members

The following are the four members of this verb type:

> verbs of wrapping:
>   *tsutsumu* 'wrap', *kurumu* 'wrap, tuck' , *maku* 'roll, wrap'
> verb of hiding:
>   *kakusu* 'hide, cover'

5.4.12.2. Semantics

These verbs typically refer to putting an entity (clothes, cloths, or paper) over another to cover it. Some verbs (such as *tsutsumu* 'wrap', *kakusu* 'hide') entail that an object is entirely covered up, while others (such as *kurumu* 'wrap, tuck') do not necessarily entail complete coverage.

5.4.12.3. Syntactic patterns

The verbs manifest L-linking as example (128) shows. A peculiar characteristic of the verbs of this type is that they also take 'reversed' instrumental linking as in example (129):

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rather than I-linking.

[21] Fukui et al. (1985) are partly right in saying that verbs that allow the locative alternation have a component of "changing ground". However, to be more specific,we should say that this component only appears with I-linking.

L-linking:

(128)
Jacqui wa okashi o shinbunshi ni tsutsun-da.
Jacqui TOP sweets ACC newspaper ALL wrap-PAST
Jacqui wrapped the sweets in newspaper.

I-linking (Reversed instrumental linking)[22]:

(129)
Jacqui wa okashi o shinbunshi de tsutsun-da.
Jacqui TOP sweets ACC newspaper INST wrap-PAST
Jacqui wrapped the sweets with newspaper.

The covered object ('sweets') is marked as accusative in both patterns and the covering object ('newspaper') has two syntactic realisations, *ni* in L-linking and *de* in I-linking. As the English translations and Levin's description of (v) of 9.8 *Fill* verbs indicates that English also has two patterns, *in* and *with*, to mark the covering object. I call this alternation the **FG construal alternation**, for the reasons discussed below. This alternation is different from that with the previous verb type that shows the Japanese locative alternation, which alternates between L-linking and I-linking without changing figure and ground construal.

Let us now consider the use of *kurumu* 'wrap' in examples (130) and (131) as well as that of *tsutsumu* 'wrap' above.

Kurumu examples:

(130)
Watashi wa akanbo o mouhu ni kurun-da.
I TOP baby ACC blanket ALL wrap-PAST
I tucked a baby in a blanket.

(131)
Watashi wa akanbo o mouhu de kurun-da.
I TOP baby ACC blanket INST wrap-PAST
I tucked a baby with a blanket.

Examples (128) and (130) manifest conventional L-linking with the covered object as the figure and the covering object as the ground. That is, the covering object is

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[22] Note that this linking is the same as normal I-linking in that the figure is marked as the antecedent oblique and the ground is marked as the direct object. I have used the term "reversed" for the sake of the convenience in that the figure and ground construal is different from L-linking of the verbs of the category.

construed as a place where the covered object is located. Examples (129) and (131) manifest I-linking, but this time the covered object is the ground and the covering object is the figure. That is, the covering object is construed as the instrument to 'cover' the covered object. The verbs of this type show the two linking patterns with the construal of the ground and the figure in one pattern reversed in the other.

We could attribute the possibility of the two construals above to the fact that the semantic properties of both participants are ambiguous in determining the figure and the ground. Talmy (1978: 627) defines the figure as a moving or conceptually movable point and the ground as a reference point which has a stationary setting. The covering object is larger than the covered object, which means that the former is more likely to be construed as a reference point (the ground). On the other hand, the covering object is moving while the covered object is stationary, which favours the latter being the ground. (When we wrap something, we move a covering object and not a covered object.) Each has the potential to be construed as either ground or figure, thus making the figure/ground (FG) construal alternation possible. This is a feature of this verb type as we cannot always change a figure construal for a ground construal. For example, *nuru* 'smear' in *penki o kabe ni nuru* ('paint ACC wall ALL smear') cannot have the alternative construal because *wall* is not mobile and is bigger in a normal conceptualisation. .

One verb of hiding, *kakusu*, has L-linking and I-linking, in a slightly different way from verbs of wrapping, which can refer to the same situation of wrapping with each the two different linking patterns. In *kakusu* 'hide', two different linkings (i.e. two different figure/ground construals) are in complementary distribution. The verb originally meant to hide or conceal something such that it is not visible or perceivable. One way to do this is to put that entity into a container or put it somewhere where

nobody sees it and the other way is to cover the entity with something. L-linking is used to entail the former way and I-linking is used to entail the latter way as the following examples illustrate:

(132a) Jacqui wa atarashii kutsu o hikidashi ni kakushi-ta.
Jacqui TOP new shoes ACC drawer ALL hide-PAST
Jacqui hid the new pair of shoes in the drawer.

(132b) Jacqui wa atarashii kutsu o mouhu de kakushi-ta.
Jacqui TOP new shoes ACC blanket INST hide-PAST
Jacqui hid the new pair of shoes by covering them with the blanket.

Thus, the hidden entity (the pair of shoes) is the direct object in the two linkings; it is construed as the figure with L-linking and as the ground with I-linking. I call the former use of *kakusu* the 'hiding by putting-in(to)' sense and the latter use the 'hiding by covering' sense.

5.4.12.4. Causal and aspectual patterns

The causation pattern reflects the ambiguity of the figure and ground construals. The agent acts on the figure to wrap the ground or to be wrapped by the ground. This is extended causation as it takes a certain amount of time to wrap something and the agent needs to exert force during that time. With *te-iru*, both patterns have an activity in progress meaning, indicating that the agent is engaged in an activity of wrapping to cover the entity.

(133) Jacqui wa okashi o shinbunshi ni tsutsun-de-iru.
Jacqui TOP sweets ACC newspaper ALL wrap-TE-IRU
Jacqui is wrapping the sweets in newspaper.

(134) Jacqui wa okashi o shinbunshi de tsutsun-de-iru.
Jacqui TOP sweets ACC newspaper INST wrap-TE-IRU
Jacqui is wrapping the sweets with newspaper.

To be more precise, the event is an accomplishment with the covered object as the verbal scale. The *sukoshizutsu* 'little by little' test in examples (135) and (136) shows

that the sweets (the covered object) are the holistic theme in both L-linking and I-linking.

L-linking

(135)
Jacqui wa okashi o shinbunshi ni sukoshizutsu tsutsun-da.
Jacqui TOP sweets ACC newspaper ALL little.by.little wrap-PAST
Jacqui wrapped the sweets in newspaper little by little.

I-linking

(136)
Jacqui wa okashi o shinbunshi de sukoshizutsu tsutsun-da.
Jacqui TOP sweets ACC newspaper INST little.by.little wrap-PAST
Jacqui wrapped the sweets with newspaper little by little.

This is not surprising because the event of wrapping an object is only measured by how much the object is covered and not by how much paper or cloth is used.

5.4.12.5. Semantic representations

Semantic representations for L-linking and I-linking are proposed in the following Figures. Both of them capture the fact that the covered object is associated with a verbal scale. The order of causal chain is opposite in the two diagrams reflecting the different figure and ground construals.

Figure 32. accomplishment construal of L-linking of tsutsumu *'wrap' in (128)*
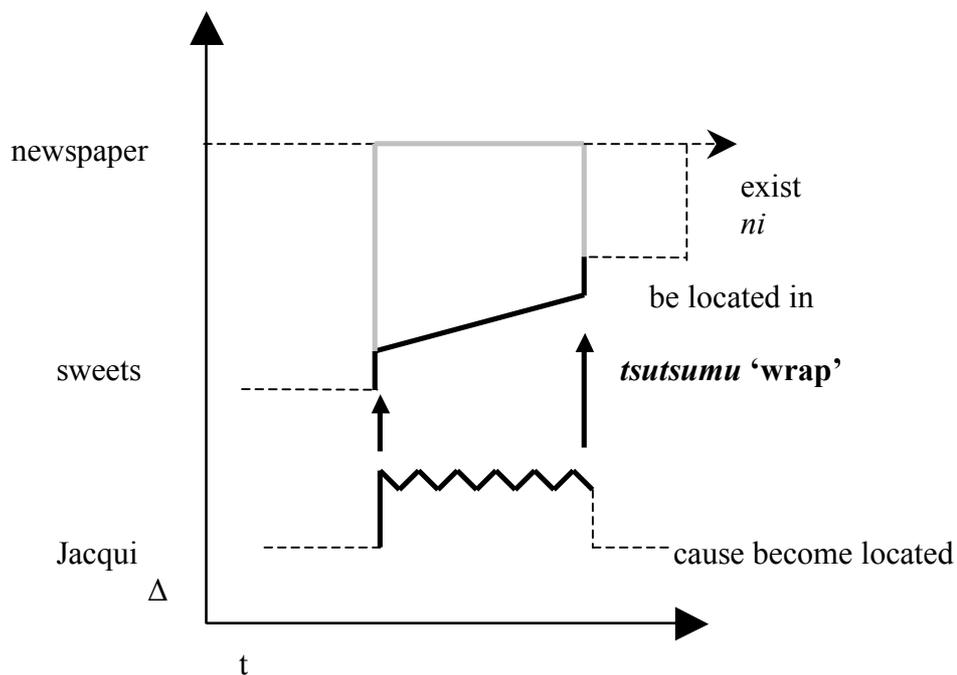
Figure 33. accomplishment construal of I-linking of tsutsumu *'wrap' in (129)*
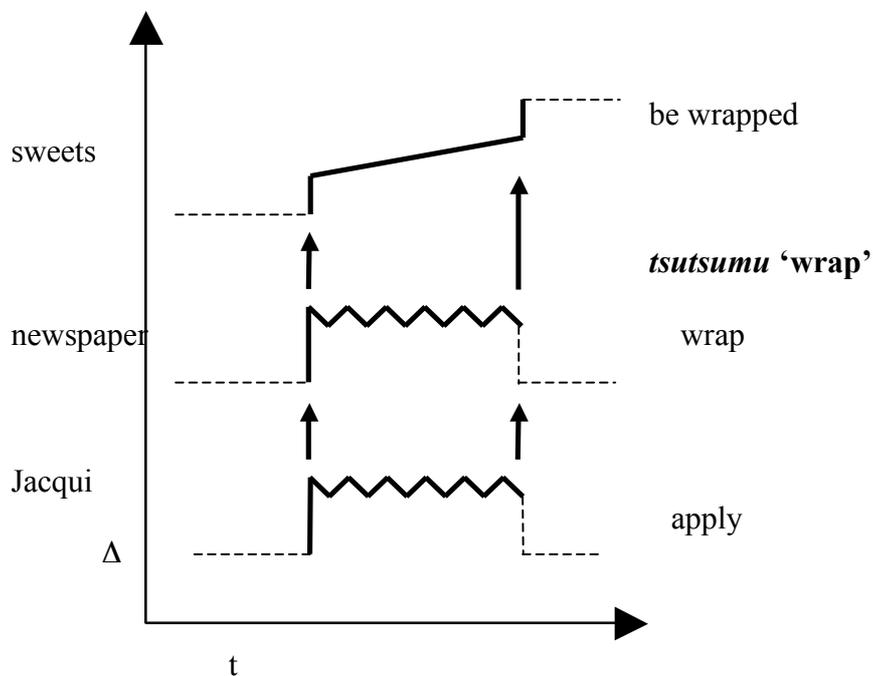
5.4.13. Type 13 *Hou.boku-suru* 'graze' verbs: ground incorporation

5.4.13.1. Members

The following are some members of this verb type:

> *tou.goku-suru* (throw'into.prison-do = 'imprisonment-do' = prison),
> *hou.boku-suru* (release.pasture-do = 'graze')

5.4.13.2. Semantics

The number of verbs in this category is small compared to the ground incorporation verbs of English (9.10 *pocket* verbs in Levin's classification). They are VN-*suru* verbs of Chinese origin. The first part refers to the VN of causing motion (verb) and the second part to the ground (noun), where the figure is caused to move to.

5.4.13.3. Syntactic patterns

They take the figure as a direct object (complete incorporation) and manifest FA-linking.

FA-linking

(137)
Hokkaido de-wa   natsu   ni   ushi o   hou.boku-suru.
Hokkaido LOC-TOP summer LOC cattle ACC graze
In Hokkaido, they put the cattle out to pasture in summer.

They can also take the ground in the oblique position. In this case the verbs manifest L-linking and this specifies additional meanings of the ground (incomplete incorporation). Also the verbs do not take a source phrase.

L-linking

(138)
Hokkaido de-wa   natsu   ni   ushi o   sanpuku ni   hou.boku-suru.
Hokkaido LOC-TOP summer LOC cattle ACC hillside ALL graze
In Hokkaido, they put the cattle out to pasture on the hillside in summer.

*Source phrase

(139)
*Hokkaido de-wa   natsu   ni   ushi o   koya kara hou.boku-suru.
 Hokkaido LOC-TOP summer LOC cattle ACC pen   ABL graze
*In Hokkaido, they put the cattle out to pasture from the pen in summer.

5.4.13.4. Causal and aspectual patterns

The agent acts on the figure and causes it to change its location. The aspect construal of these verbs is basically punctual as *te-iru* does not give the activity in progress sense but the retrospective sense or the habitual reading.

(140) Hokkaido de-wa   natsu   ni   ushi o   hou.boku-shi-te-iru.
      Hokkaido LOC-TOP summer LOC cattle ACC graze-TE-IRU
      In Hokkaido, they put the cattle out to pasture in summer.

5.4.13.5. Semantic representations

The two representations are proposed as follows: Figure 34 for complete ground incorporation and Figure 35 for incomplete ground incorporation.

Figure 34. achievement construal of FA-linking of hou.boku-suru *'graze' in (137)*
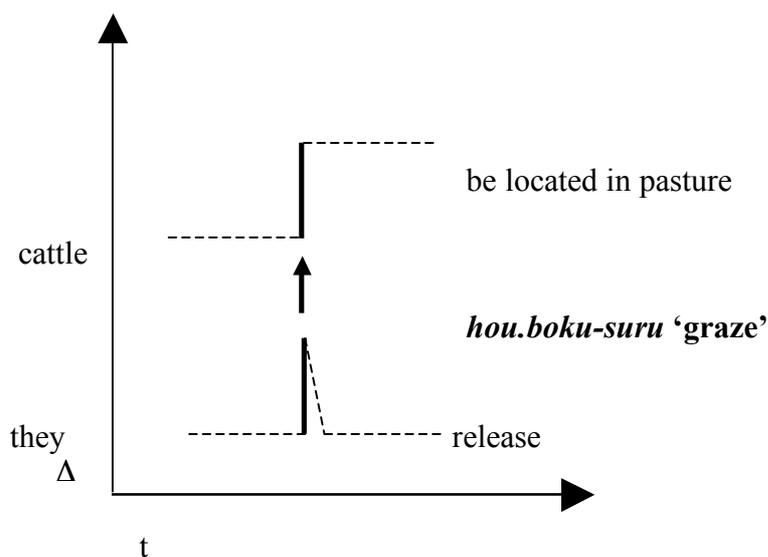
Figure 35. achievement construal of L-linking of hou.boku-suru *'graze' in (138)*
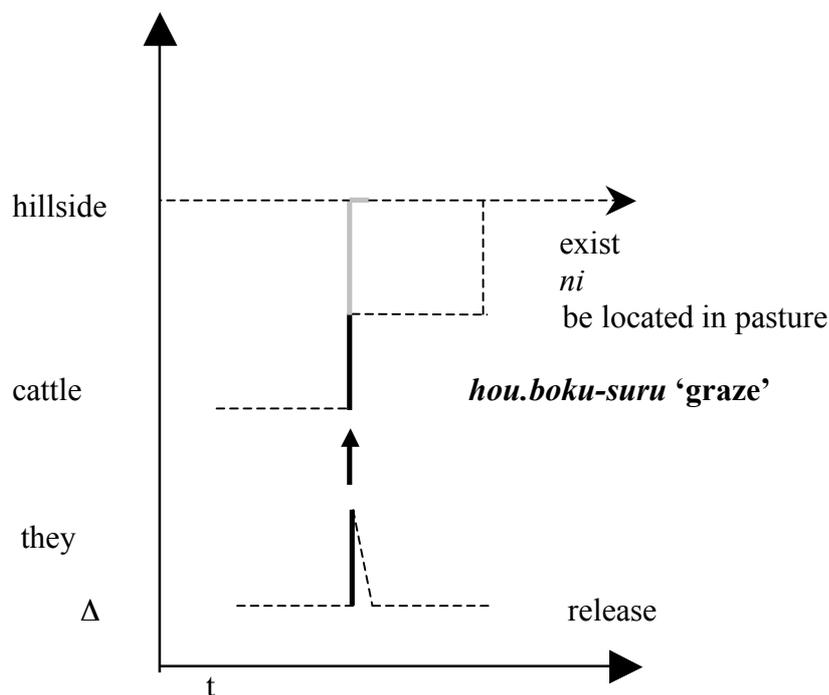
5.4.14. Type 14 *San.sui-suru* 'sprinkle.water-do' verbs: figure incorporation 1

5.4.14.1. Members[23]

The following are some member of this verb type:

> pattern 1
>> *hou.sui-suru* (release/give'off.water-fo = spray water)
>> *san.sui-suru* (scatter.water-do = spray/sprinkle water)
> pattern 2
>> *shup.pin-suru* (take'out.goods-do = exhibit)
>> *nyuu.ka-suru* (put'in.load-do = receive a supply of ~)
> pattern 3
>> *shoku.ju-suru* (plant.tree-do = plant a tree)

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[23] There are three patterns according to the type of verbs used as the first element in the VN verbs. The first pattern is verbs of the scattering type, the second pattern is type 2 (caused motion action with specified direction) and the third pattern is other type of verbs of putting. However, I do not differentiate them into different 'subtypes' but only as having different 'patterns' which do not have very outstanding differences in argument linking.

5.4.14.2. Semantics

The verbs are figure incorporation verbs (similar to *butter* verbs in Levin's classification). The first part of VN refers to the caused motion action and the second part to the figure, which is caused to move or change its location.

5.4.14.3. Syntactic patterns

Not unlike in the ground incorporation pattern, there are two variations: complete and incomplete incorporation. An argument which gives an additional meaning to the type of figure will appear syntactically as the direct object in incomplete incorporation. A significant difference from 9.9 *butter* verbs (figure incorporation verbs) in English is that in Japanese the ground is realised as oblique (GO-linking) and only the figure can be realised as the direct object (L-linking) while the ground is realised as the direct object in English (cf. Matsumoto (1997: 176-177)), such as *He watered the garden*.

GO-linking (complete incorporation)

(141)
Kare wa niwa ni san.sui-shi-ta.
he TOP garden ALL scatter.water-do-PAST
He watered the garden. (Jap. He watered to the garden.)

*GA-linking

(142)
*Kare wa niwa o san.sui-shi-ta.
he TOP garden ACC scatter.water-do-PAST
Jap. *He watered the garden.

L-linking (incomplete incorporation)

(143)
Kare wa niwa ni idomizu o san.sui-shi-ta.
he TOP garden ALL well.water ACC scatter.water-do-PAST
He watered the garden with water from the well.
(Jap. He watered water from the well to the garden.)
(This example is from Matsumoto 1997: 176)

source-phrase (some) [24]

(144)
?Kare wa oke kara idomizu o san.sui-shi-ta.
he TOP bucket ABL well.water ACC scatter.water-do-PAST
?He scattered well water from the bucket.

The examples show that the ground appears as oblique in both complete and incomplete figure incorporation patterns in Japanese. The Japanese translation equivalent of *He watered the garden (with water from the well)* is ungrammatical.

Some of the verbs in this category may appear with FA-linking as well.

(145)
Kare wa idomizu o san.sui-shi-ta.
he TOP well.water ACC scatter.water-do-PAST
He scattered water from the well.

5.4.14.4. Causal and aspectual patterns

The causal pattern is that the agent acts on the figure and causes it to move or change its location. The aspectual properties vary according to individual verbs[25]. Pattern 1 bears the activity in progress sense with *te-iru* indicating that somebody is in the middle of spraying/scattering water. Pattern 2 cannot have the activity in progress sense (except with a special context like runup achievement), so the event is punctual. Pattern 3 can bear the activity in progress sense with *te-iru* indicating a runup achievement event (when the figure is singular) or repeated events of achievement (when the figure is plural).

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[24] With figure incorporation verbs having 'put into' and 'take out' verbs (pattern 2) or verbs of scattering (pattern 1) as the first element, it is also possible to specify the source with Ablative case. This conforms to the characteristics of these verbs already discussed.

[25] The aspectual patterns of verbs of this category basically comply with that of the first character of VN. For example, the first verbal part is equivalent to 'put.in' or 'take.out' (type 2) verbs, and therefore characteristics of aspectual patterns of these verbs apply to them. If the first part is a verb of scattering, then the VN follows the aspectual pattern of verbs of scattering.

5.4.14.5. Semantic representations

The complete/incomplete incorporation versions of *san.sui-suru* 'scattering water' are

presented in the Figures below.

Figure 36. undirected activity construal of GO-linking of san.sui-suru *'scatter water'*
in (141)
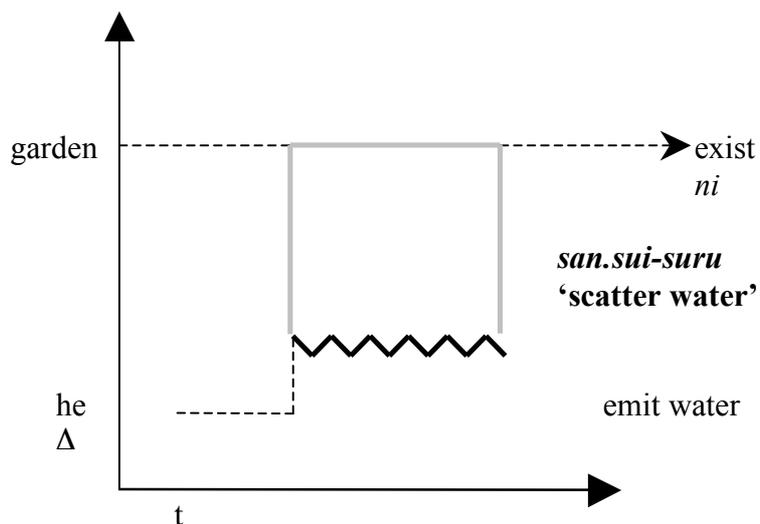
Figure 37. undirected activity construal of L-linking of san.sui-suru *'scatter water' in*
(143)

231
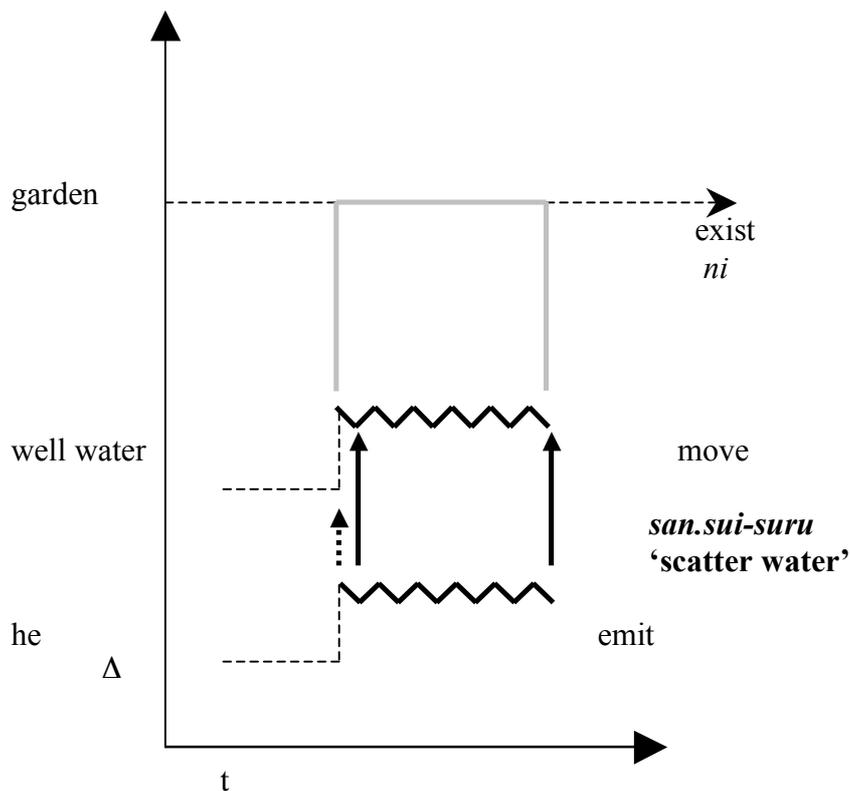
5.4.15. Type 15 *Shoku.rin-suru* 'afforest' verbs: figure incorporation 2

5.4.15.1. Members

The following are the three members of this verb type:

> *shoku.rin-suru* (plant.woods-do= afforest/plant land with trees)
> *juu.den-suru* (fill.electricity-do = charge)
> *chaku.shoku-suru* (dye.colour-do = dye/put colour)

5.4.15.2. Semantics

As with the previous type, the first part of the VN is the verb of putting and the second part specifies the figure. The figure can be fully incorporated, in which case it does not appear syntactically, or it can be partially incorporated, in which case, the figure argument that adds specific meaning to the type of figure appears in the syntax.

5.4.15.3. Syntactic patterns

This category of figure incorporation assigns the direct object position to both figure and ground. When the figure is completely incorporated, the ground is marked either with Accusative (GA-linking) or with oblique case (GO-linking) as follows:

GA-linking
(146)
Hageyama   o   shoku.rin-suru.
bald.mountain ACC   afforest
They afforest the bald mountain.

GO-linking
(147)
Hageyama   ni   shoku.rin-suru.
bald.mountain ALL   afforest
They afforest the bald mountain.

Then, where the figure is partially incorporated, this type of verb has two linking patterns (L-linking and I-linking) as follows:

L-linking
(148)
Hageyama   ni   sugi   no   ki   o   shoku.rin-suru.
bald.mountain ALL Japanese.cedar GEN tree ACC afforest
They plant Japanese cedars in the bald mountain.

232

I-linking

(149) Hageyama   o   sugi   no   ki   de   shoku.rin-suru.
bald.mountain ACC Japanese.cedar GEN tree INST afforest
They afforest the bald mountain with Japanese cedars.

A source phrase is not so acceptable, and the path pattern is marginally grammatical

as following examples illustrate:

*source-phrase

(150) *Mt.Fuji kara sugi   no   ki   o   shoku.rin-suru.
Mt.Fuji ABL Japanese.cedars GEN tree ACC afforest
They plant Japanese cedars from Mt. Fuji.

?Path pattern

(151) ?Mt.Fuji kara hageyama   ni   sugi   no   ki   o   shoku.rin-suru.
Mt.Fuji ABL bald.mountain ALL Jap.cedar GEN tree ACC afforest
They plant Japanese cedars from Mt. Fuji to the bald mountain.

5.4.15.4. Causal and aspectual patterns

The causal pattern for this type of verbs follows that of the previous types (type 14).

The aspectual pattern is accomplishment; events of charging a battery or afforesting

land extends over the t-scale. These verbs are quite similar to type 11 *decorate* verbs;

shoku.rin-suru 'afforesting' is making a certain place a forest by planting a lot of

trees[26] or filling a place with trees and *juu.den-suru* 'charging a battery' is filling a

battery with electricity. The only difference is that the figure is incorporated in this

category. This type is especially close to *tsumeru* 'pack' and *mitasu* 'fill' of the

decorate type verbs; The ground naturally delimits the events and also sets the natural

limit on how much of the figure will be used. Therefore, either the ground or the

figure can be associated with a verbal scale. As we can expect, the difference between

L-linking and I-linking is very subtle. The interpretation of the verbal scale correlates

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[26] It would be interesting to contrast *shoku.ju-suru* (plant tree) of type 14 and *shoku.rin-suru* (plant forest= afforest). *Shoku.ju-suru* can be used for planting only one tree. On the other hand, *shoku.rin-suru* entails planting a certain number of trees as we cannot make a forest with one tree.

with the two syntactic patterns which reflect the different construals. Again, the *sukoshizutsu* 'little by little' test with the above examples reveals that it is the direct object which is the verbal scale. Example (152) and (153) illustrate:

L-linking

(152) Hageyama   ni   sugi   no   ki o   sukoshizutsu shoku.rin-shi-ta.
bald.mountain ALL Jap.cedar GEN tree ACC little.by.little afforest-PAST
They planted Japanese cedars in the bald mountain little by little.
(Trees are planted little by little.)

I-linking

(153) Hageyama   o   sugi   no   ki de   sukoshizutsu shoku.rin-shi-ta.
bald.mountain ACC Jap.cedar GEN tree INST little.by.little afforest-PAST
They afforest the bald mountain with Japanese cedars.
(The mountain is covered little by little.)

The subtle difference can be found in GA-linking and GO-linking as well as the following examples illustrate:

GA-linking

(154) Karera wa   hageyama   o   sukoshizutsu shoku.rin-shi-ta
they   TOP bald.mountain ACC little.by.little afforest-PAST
They afforested the bald mountain little by little.

GO-linking

(155) Karera wa   hageyama   ni   sukoshizutsu shoku.rin-shi-ta
they   TOP bald.mountain ALL little.by.little afforest-PAST
They planted (trees) on the bald mountain little by little.

In GA-linking, the ground is associated with a verbal scale as 'little by little' modifies the state of the mountain being gradually covered with trees in example (154). On the other hand, the adverb indicates that the trees are planted little by little (155). The semantic representations in Figures 38 and 39 capture the difference.

5.4.15.5. Semantic representations

The semantic representation for incomplete incorporation version is similar to those of *tsumeru* 'pack'. I therefore present only the figures for complete incorporation version.

Figure 38. accomplishment construal of GA-linking of shoku.rin-suru *'afforest' in (154)*
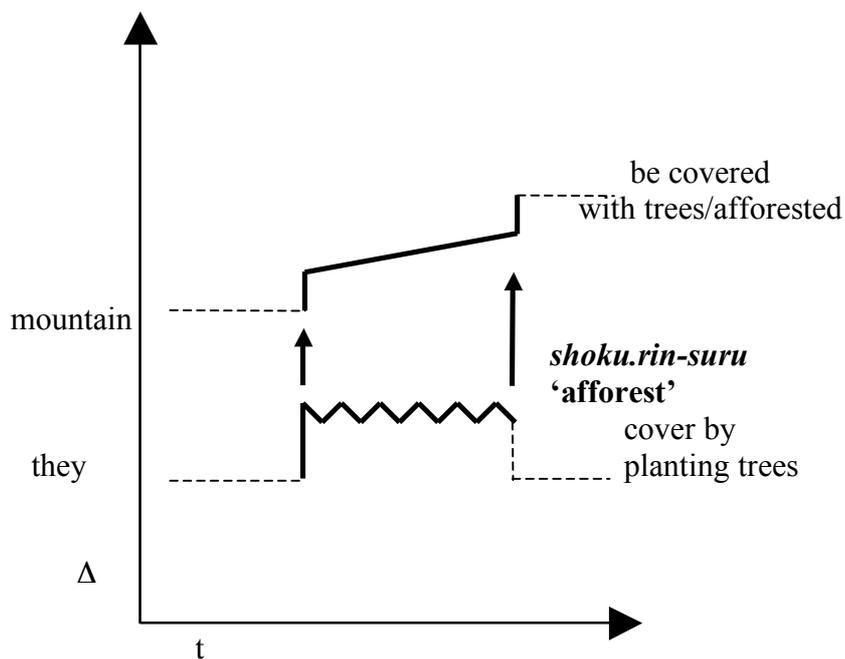
Figure 39. accomplishment construal of GO-linking of shoku.rin-suru *'afforest' in (155)*
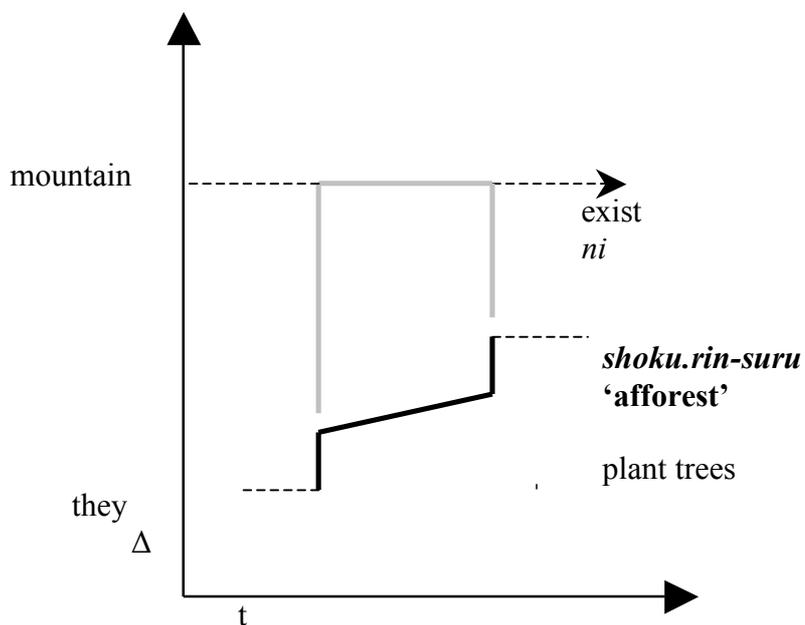
One may intuitively feel that it is strange to associate a verbal scale with the agent in Figure 39. However, it is the only way to illustrate the above reading. As its subevent denotes planting "trees", it is still allowed to have a directed activity construal. The

contour of the agent in Figure 39 is a course-grained representation of the iterated

cycle of achievement of planting one tree.

5.4.16. Type 16 *Hame-komu* 'fit.into-put.into' verbs: means compound 1 with specified direction

5.4.16.1. Members

The following are some of the members of this verb type[27]:

pattern 1:
hame-komu 'put -put into', *shimai-komu* 'put.away-put.into', *tsume-komu* 'pack-put.into', *sosogi-ireru* 'pour.into-put.into'

pattern 2:
hiki-komu 'pull-put.into', *oshi-komu* 'push-put.into', *mochi-ageru* 'take-raise', *nui-komu* 'sew-put.into'

VN-suru: *chuu.nyuu-suru* ('pour.put.into-do' = inject)

5.4.16.2. Semantics

Verbs of this type are either compounds or VN-*suru* verbs. As the title of 5.4.16

indicates, more than one element is added to the simple meaning of caused-motion. In

compounds, the V1 components indicate a sort of means by which the caused-motion

is carried out. The V2 components are verbs that are subcategorised as type 2, and

which specify the direction or location of caused-motion, such as *ireru* 'put into' and

ageru 'raise'. *Komu*[28] 'put into' is the most productive V2 component of verbs of

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[27] The compounds are classified into two patterns according to the way their component structures are integrated. This will be discussed later. Their syntactic behaviours are not drastically different, so I do not differentiate them as different subtypes.

[28] The verb *komu* does not appear in type 2 verbs as it does not mean caused-motion when used as a full verb. It means that a specific place is full of something as follows:

(i) Densha ga   komu.
    train   NOM be.full.of.people
    The train is full of people.

putting in the data. Compound verbs of this type are very extensive and productive. Various kinds of verb classes can appear as a V1-means component: verbs of putting, verbs of contact by impact, verbs of throwing, verbs of sending and carrying, verbs of exerting force, verbs of holding, and so on[29]. For Chinese-origin VN verbs, both of the two elements of VN are verbs; the first is equivalent to V1 (specifying means) and second to V2 (specifying caused motion and direction/location).

5.4.16.3. Syntactic patterns

Th linking patterns follow those of type 2 verbs. The verbs can take a path function which specifies a spatial goal (marked with *ni*) and a spatial source (marked with *kara*), though one of them is often omitted. Therefore, compounds with this type as V2 may appear as verbs of removing as well. As has been discussed in relation to type 2 verbs, *dasu* 'take out' tends to omit the goal more than the others and therefore, is more likely to appear as a verb of removing. *Komu* 'put into' predominantly takes the goal rather than the source argument.

path pattern

(156) Wayne wa omoi iwa o jimen kara zujou ni mochi-age-ta.
Wayne TOP heavy rock ACC ground ABL overhead ALL take-raise-PAST
Wayne lifted a heavy rock from the ground to above his head.

L-linking:

(157) Jacqui wa takusan no youhuku o kuroozetto ni oshi-kon-da.
Jacqui TOP many GEN dresses ACC closet ALL push-put.into-PAST
Jacqui pushed many dresses into the closet.

When it is used as V2 in a compound, it bears a different function which refers to direction, that is, the transfer of something to inside a certain entity. As V2, the verb is translated as 'go in/into' (intransitive) or 'put in/into' (transitive).

[29] There is a constraint that V1 verbs should be transitive verbs as V2 verbs here are transitive. The constraint follows the principle of transitivity harmony referred to in (Kageyama 1993: 117), who observes that the combination of compounds is possible only with transitive plus transitive, unergative plus unergative, transitive plus unergative, and unaccusative plus unaccusative.

They do not take I-linking.

*I-linking

(158) *Jacqui wa takusan no youhuku de kuroozetto o oshi-kon-da.
Jacqui TOP many GEN dress INST closet ACC push-put.into-PAST
*Jacqui pushed the closet with many dresses.

5.4.16.4. Causal and aspectual patterns

The causal pattern and aspectual pattern follow those of type 2 verbs; the agent acts on the figure and causes it to move to the ground. *Ireru* 'put into', *dasu* 'put out', or *komu* 'put into' conventionally take an achievement construal but they can also take an accomplishment construal if the figure can be construed as a holistic theme associated with a verbal scale such that it is crossing the boundary line, or it is plural or refers to a certain amount of an uncountable entity. *Ageru* 'raise' and *sageru* 'lower' basically have a path function and so can have an accomplishment construal but are often construed as achievements (trivial verbal scale).

5.4.16.5. Semantic representations

For means compounds discussed in this chapter, the formation of compound verbs is basically right-headed. Right-headed means that the argument structure of the V2 (left component) is inherited by the compound verbs. That is the reason why the causal pattern and syntactic pattern of type 2 verbs determine those of the compounds of this category. I shall examine how V1 and V2 are compounded in semantic representation. Here I use the simple aspectual construal of achievement unless otherwise specified. There are several patterns in terms of semantic structure and argument structure of V1 components, thus the way V1 and V2 are integrated varies. I classify them into the two main patterns; one pattern is that V1 has the same argument structure with V2 (I call this a 'middle' compound), and the second pattern is that V1 has a different

argument linking structure from that of V2 (I call this a 'pure means' compound). Let us observe some examples mainly involving *komu* 'put into'. The semantic representation of *komu* as V2 is supposed to be like *ireru* 'put in/into' which denotes an action on the part of the agent that causes a change of location of the figure to the ground.

5.4.16.5.1. Middle compounds: *hame-komu* 'fit.into-put.into'

Let us observe the first pattern, where a V1 has the same argument structure as V2 and also inherently has a meaning of change of location.

(159a)
Haha   wa   waku ni   paneru o   hame-ta.
mother TOP frame ALL panel   ACC fit.into-PAST
Mother fit the panel into the frame. (**V1—L-linking**)

(159b)
Haha   wa   waku ni   paneru o   hame-kon-da.
mother TOP frame ALL panel   ACC put.into-put.in-PAST
Mother put the panel into the frame. (**Compound—L-linking**)

Hameru 'fit, put into' itself is a verb of putting which takes L-linking. One might think that *hameru* and *~komu* are almost synonymous, and therefore that the verb in example (159b) is a pair compound. However, *hameru* 'put,fit into' implies an additional meaning to just 'putting into'. It generally refers to the action of putting an entity into/onto another entity so that the former entity fits into the latter. (cf. *JSD*: 1047) such as putting a watch onto one's wrist (Eng. wear a watch on the wrist)), putting hands into gloves, or putting an entity into the frame etc. That is, we can conclude that *hameru* has the putting-into sense and the putting-onto sense. I also classified this verb as type 5 in the previous discussion. V1 has a certain additional meaning as well as a basic cause-motion meaning, so it can be the means which modifies how/in what way the caused motion events denoted by V2 have happened. In the following representation, I add that means meaning to the labelling of the contour.

239

In the following semantic structure of the compound, the thick black lines indicate the verb profile of the compound verb, and the arrows on the right hand side of the figure with the component verbs in the middle indicate the frame/background of the structure that is entailed by each component verb. The frame includes the unprofiled parts as well as the profiled ones. I shall continue this convention for the semantic representation of the other compounds I discuss in the thesis.

Figure 40. Semantic structure for L-linking of hame-komu *'fit into' in (159)*

V1

frame

exist
ni
be located
be set (properly)
hameru
'fit,put into'

panel

cause located

Mother

Δ

t

V2

frame

exist
ni

be located in
komu
'put into'

panel

cause located

Mother

Δ

t

Compound

frame

exist
ni
be fitted into

panel

hame-komu
'fit-put.into'

Mother

cause located

Δ

t

hameru komu

241
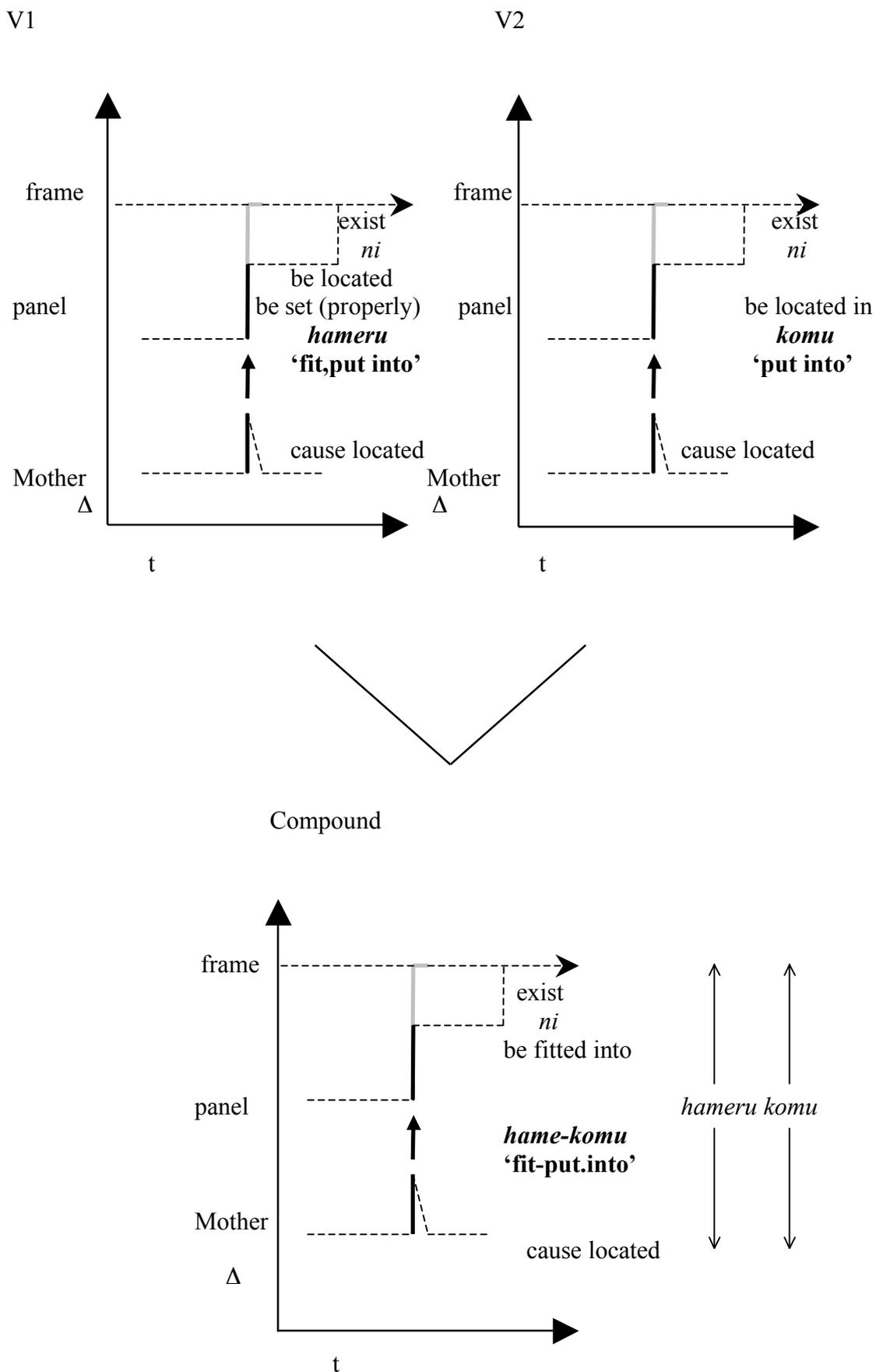
The semantic representations of V1 and the compound are identical to that of *oku* 'put' verbs. Middle compound verbs of this type have the same problem as pair compounds regarding how to decide the argument structure of the component that is inherited into the compound; headedness is ambiguous because V1 and V2 supposedly have the same linking patterns. Just as in the case of pair compounds (cf. Matsumoto 1996), we could regard them as right-headed as long as there is no counterevidence. However, there is a partial supporting evidence that the argument structure of V2 determines that of V1. *Tsumeru* 'pack, fill' is a verb of the locative alternation (cf. § 5.4.11.) When it is compounded with *komu* as in *tsume-komu* 'pack-put into', only L-linking is allowed and not I-linking. Thus, at least, we can conclude that the V2 component has more effect in determining the argument structure of the compound.

V1 components of this type are themselves already caused-motion three-argument verbs and semantically include the caused-motion sense (but without a specified direction). So, what is the point of V1 being compounded with V2? I would say that *komu* is used to emphasise the meaning of locational transfer, especially in a specified direction. That is, the putting-into sense is emphasised. *JSD* (p. 1047-8) explains the subtle semantic difference between *hameru* 'put, fit in' and *hame-komu* 'fit into' by saying that, in the latter, the meaning of putting something inside a certain entity is stressed. We can also expect that contexts where *hame-komu* is used are more limited because of this additional stress on the original meaning of *hameru*. An instance of *hameru* in such a context is given by the following interesting example from *JSD* (p. 1047-8) of putting a ring on one's finger.

(160)
Haha   wa   yubi   ni   yubiwa   o   hame-ta.
mother TOP finger ALL ring   ACC put-PAST
Mother fit the ring on her finger.

Hame-komu, which emphasises putting an entity <u>inside</u> something, cannot be used in the above sense, which is the putting-onto (cover) sense. Thus, example (161) is ungrammatical as the ring does not go inside the finger[30].

(161) *Haha   wa   yubi   ni   yubiwa   o   hame-kon-da.
   mother TOP finger ALL ring ACC put-put.in-PAST
   Mother fit the ring into her finger.

The example of *tsume-komu* 'pack-put.into' also shows that V2 emphasises the 'putting into' sense. According to the *JSD*, the compound means 'pack <u>forcibly</u>', a meaning which V1 lacks.

In summary, in middle compounds, the argument structures of V1 and V2 are identical and also participants are referentially identical. Therefore, it is difficult to see which argument structure is inherited by compounds. However, at least, there is one piece of evidence that V2 is a determinant factor. Though V1 has two linking patterns, either one or the other is suppressed when it is combined with V2 (ex. *tsume-komu*). Middle compounds are different from pair compounds in that V1 describes means so it has some additional 'subtle' meaning or restriction on how the action of caused motion has happened and V2 emphasises the meaning of V1 by further specifying the directional sense it has.

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[30] Interestingly, the *JSD* points out that the following is possible.

(i) Haha   wa   yubiwa ni   yubi   o   {muriyari} hame-kon-da.
  mother TOP ring ALL finger ACC {by.force} put-put.in-PAST
  Mother put her finger into the ring forcibly.

Elements construed as the ground and the figure in example (161) are reversed. It is natural to say (i) since physically the finger is inside the ring. The default context of wearing a ring is taking up a ring and cause it to move to fit onto a finger, thus example (160) is grammatical. With this example of an unconventional scenario, the speaker construes the sentence as if the finger is moving inside the ring rather than the ring moving onto the finger.

5.4.16.5.2. Pure means compounds

Now we examine the other type of compounds where V1 has different argument structure from V2.

5.4.16.5.2.1. *Oshi-komu* 'push-put.into'

This compound, which is a means compound with extended causation, is easily confused with manner compounds. Means compounds with extended causation have an ambiguous status concerning the *ni-yotte/~nagara* 'by~/while~' tests (cf. § 4);.they pass both of the tests. As the agent continues to apply force to the figure and causes it to move, the means compound can be interpreted as indicating the 'manner'. A whole event is accompanied by a certain action of the agent. However, I define the 'manner' of caused-motion compound as that of the moving entity (the figure) not that of the agent and I would treat caused-motion compounds with extended causation as means compounds. This position is not contrary to Matsumoto (1996), who treats verbs in this category as means compounds.

In the case of the second pattern, V1 verbs do not have the caused-motion sense as the following examples indicate:

(162a)
*Ane wa takusan no doresu o oshi-ta.
sister TOP many GEN dress ACC push-PAST
*My sister pushed many dresses. (**V1**)

(162b)
Ane wa kabe o oshi-ta.
sister TOP wall ACC push-PAST
My sister pushed the wall. (**V1**)

(162c)
Ane wa takusan no doresu o kuroozetto ni oshi-kon-da.
sister TOP many GEN dress ACC closet ALL push-put.into-PAST
My sister pushed many dresses into the closet. (**Compound—L-linking**)

(162d)
*Ane wa kabe o dokoka ni oshi-kon-da.
sister TOP wall ACC somewhere ALL push-put.into-PAST
*My sister pushed the wall into somewhere. (**Compound—L-linking**)

Verbs of exerting force (*hiku* 'pull' and *osu* 'push') are analysed as having the semantic representation of Figure 41 of V1 since pushing and pulling do not indicate that the patient has to undergo changes (cf. Croft 2000, §3.5.2). When they are compounded with *komu*, however, the meaning of change (of location) of the figure is added to the original part of the representation of the V1 verb as well as the caused-action part being maintained and emphasised by the V2. The following figure represents *komu* and the compound in an accomplishment construal to make clear that the causation of the agent continues from the beginning to the end until the dresses reach inside the closet. Like other type 2 verbs, it can also be construed as an achievement alternatively.

Figure 41. Semantic structure for L-linking of oshi-komu *'push-put.into' in (162)*

V1   V2
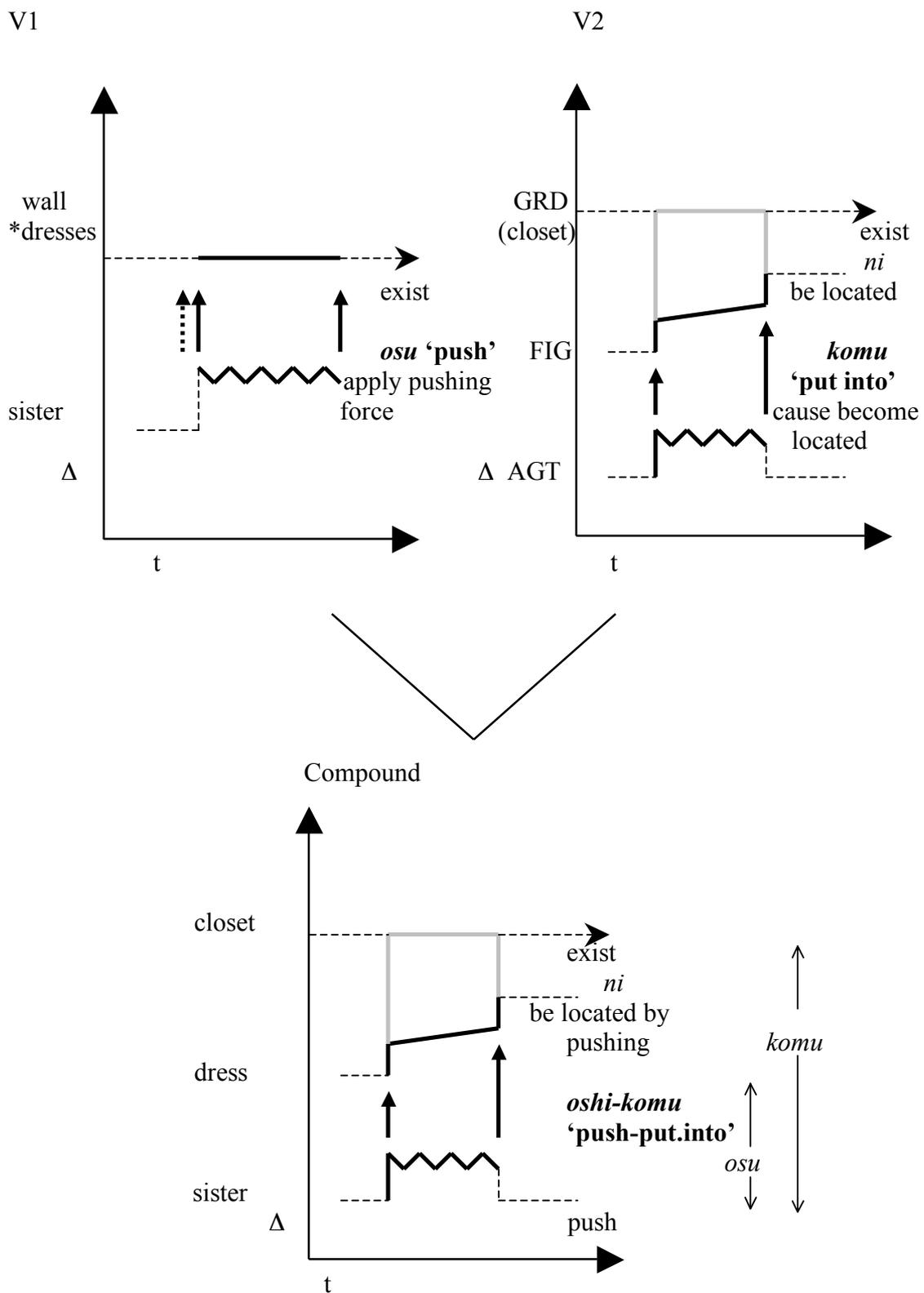
Compound

V1 and V2 have different argument structures, but the resulting argument structure of the compound is identical to that of V2, being right-headed. Thinking of the integration of compounds in the cognitive and constructional approach, the semantic structure of V2 is thought to be the construction which is instantiated by the semantic structure of V1. The V2 construction of Figure 41 is superimposed onto that of V1 in order to be instantiated. That is, the V2 construction can be an elaboration-site (e-site) in Langacker's terms (1987: 304-306), where the structure of V1 elaborates the shared substructure or entities of V2 to specify its rather schematic representation with specifying how the caused-motion happens. As the result of the superimposition, the composite structure is given. I shall come back to this in §5.5.

Interestingly, the semantic constraints of the direct object are different between the V1 and the compound ((162)). Self-evidently, the direct object should be a movable entity in the compound because it indicates the causing of motion. In the case of *osu* 'push', an entity that cannot resist a pushing force is not preferred as its direct object, thus it is strange to say "push the dresses".

5.4.16.5.2.2. *Tataki-komu* 'hit-put.into'

This is another examples of pure means compound. This verb designates punctual causation.

(163a)
Robert	wa	booru	o	tatai-ta.
Robert	TOP	ball	ACC	hit-PAST

Robert hit the ball. (**V1**)

(163b)
Robert	wa	booru	o	uyoku	ni	tataki-kon-da.
Robert	TOP	ball	ACC	right.stand	ALL	hit-put.into-PAST

Robert hit the ball into the right stand. (**Compound—L-linking**)

The following is the proposed representation of the compound:

Figure 42. Semantic structure for L-linking of tataki-komu *'hit-put.into' in (163)*

V1

ball — hit

tataku 'hit'

Robert — impact

Δ

t

V2

GRD — exist *ni* be located

FIG

komu 'put into'

AGT — cause become located

Δ

t

Compound

right stand — exist *ni* be located by being hit

ball

tataki-komu 'hit into'

tataku komu

Robert — impact

Δ

t
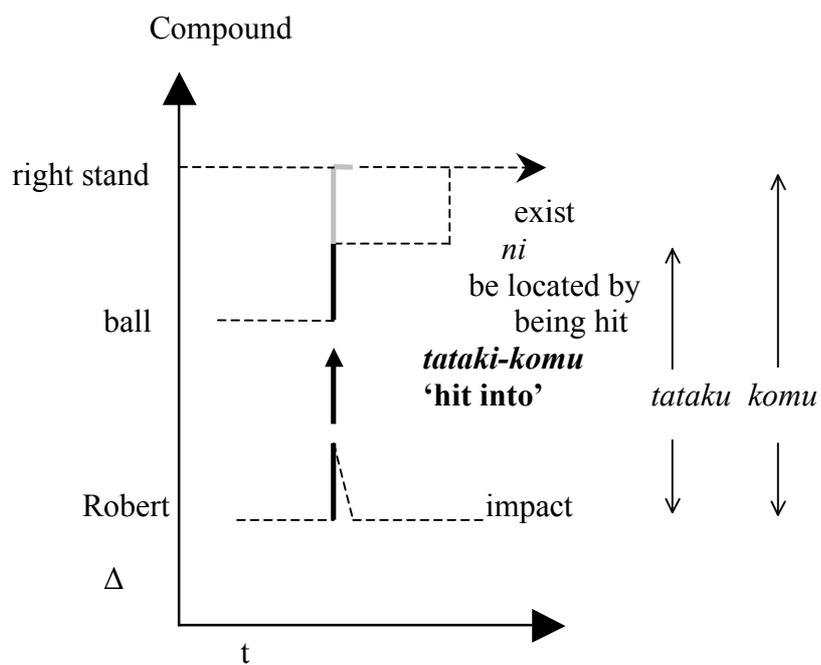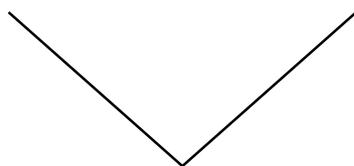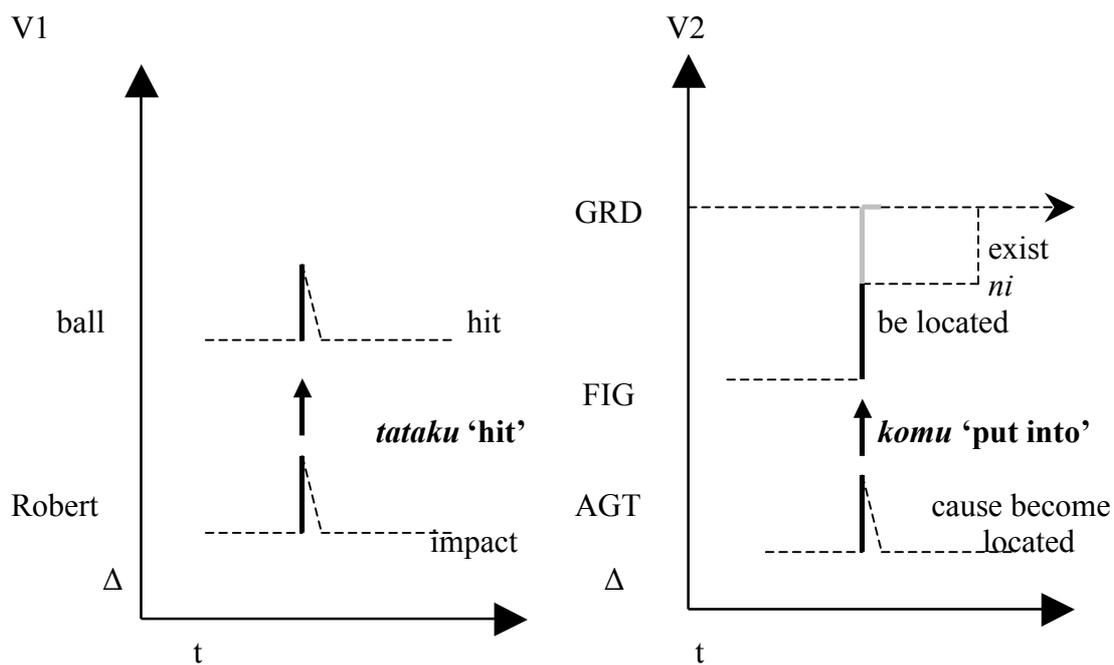
The process of combining the two verbs is similar to that in the previous example (*push* plus *put into* case) in terms of argument linking. *Tataku* 'hit' was originally a verb of contact by impact and does not take the third argument. The goal phrase is introduced to the compound one by V2 *komu* 'put into', though it is not profiled by the verb. The subevent the ball undergoes is also aspectually different. With *tataku* 'hit', the ball's change of state is not entailed by the verb; in the representation above, it is affected only for the moment of the contact (construed as a cyclic achievement). The change of state, therefore, is also introduced by the V2. The semantic structure of the V2 is superimposed onto that of the V1, which, in turn, instantiates V2.

The direct object of verbs of contact by impact can be either a mobile entity (such as the ball in the above example) or a immobile one (such as a wall), as illustrated in the following example.

(164)
Robert wa   kabe o   tatai-ta.
Robert TOP wall ACC hit-PAST
Robert hit the wall. **(V1)**

As in the case of *oshi-komu* (push-put.into), only the mobile entity can be combined with verbs of caused-motion with specified direction as V2. Verbs of contact by impact with the immobile entity may be represented differently. Since an immobile entity is less affected by the act of the agent, it can be represented in "less-affected" way as follows (cf. Croft 2000 Figure 15b, §4.3):

Figure 43. Less affected direct object of tataku *'hit' in (164)*
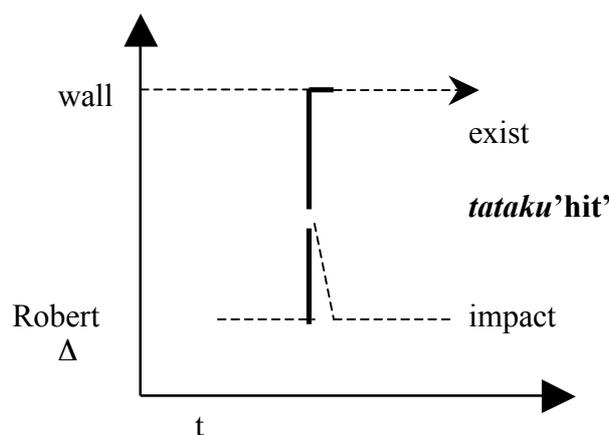
In this reprsentation, the wall is represented merely as a place of contact.

In summary, in pure means compounds, the change of location part is newly introduced by V2, which has a different argument structure from V1. The semantic restrictions on arguments (the figure) of V1 may be altered so as to be integrated into compounds. A part of argument linking structure of V1 is preserved by virtue of the subject and the direct object being assigned in the same way in compounds; the agent appears as the subject and the entity acted on appears as the direct object.

5.4.17. Type 17 *Nuri-tsukeru* 'smear-apply' verbs: means compound 2

5.4.17.1. Members

The following are some members of this verb type:

(middle compound):
    nuri-tsukeru ('smear-apply'),
    hari-tsukeru ('stick-attach'),
    ue-tsukeru ('plant-attach')

(pure means compound)
    nui-tsukeru ('sew-attach'),
    huri-kakeru ('shake-sprinkle'),
    huri-maku ('shake-scatter')

5.4.17.2 Semantics

Most of the verbs of this class are compound verbs whose V1 component indicates means and whose V2 component is a verb that entails an event of caused-motion without specifying direction, unlike type 2 verbs. Rather, according to Matsumoto (1997: 162-165), the V2 verbs of this category entail/incorporate a certain change of state incidental to the caused-motion. (These are attaching/applying *tsukeru* verb, or the *kazaru* 'decorate' type). I shall now examine some examples of means compounds and suggest semantic representations for them.

5.4.17.3. Syntactic patterns

This type of verbs takes L-linking but not I-linking, as the following examples illustrate:

L-linking

(165)
Mary wa kabe ni penki o nuri-tsuke-ta.
Mary TOP wall ALL paint ACC smear-apply-PAST
Mary smeared paint on the wall.

(166)
Haha wa bajji o yunifoomu ni nui-tsuke-ta.
mother TOP badge ACC uniform ALL sew-attach-PAST
Mother sewed the badge onto the uniform.

*I-linking

(167)
*Mary wa kabe o penki de nuri-tsuke-ta.
Mary TOP wall ACC paint INST smear-apply-PAST
Mary smeared the wall with paint.

This type takes neither the source phrase nor the path pattern.

*source phrase (*path pattern)

(168)
*Mary wa baketsu kara {kabe ni} penki o nuri-tsuke-ta.
Mary TOP bucket ABL {wall ALL} paint ACC smear-apply-PAST
Mary smeared paint from the bucket {onto the wall}.

Only a few of them (depending on V2) may allow FA-linking.

(169)
Jacqui wa kousui o huri-mai-ta.
Jacqui TOP perfume ACC shake-scatter-PAST
Jacqui sprinkled perfume.

251

5.4.17.4. Causal and aspectual patterns

The whole meaning of compounds entails that the agent acts on the figure to change the location to the ground. The aspectual pattern may vary. An event can be construed as an achievement or accomplishment.

5.4.17.5. Semantic representations

To see how the argument structures of V1 and V2 are integrated into that of compound, I use examples of *~tsukeru* 'apply/attach' compounds, which occur frequently in the data. As a full verb and as a V2 verb, it has several senses such as applying, sticking, putting on, and attaching. It may also appear in other verb classes such as verbs of attaching. I discuss the verb as a verb of putting here as the various senses can be reduced to one single meaning of making two entities have a contact (a prolonged one not an instanteous contact) physically or more abstractly (in an extended sense) by moving one entity to the other.

Again, in terms of argument structure, compounds with *~tsukeru* 'apply/attach' as V2 can be subdivided into two types; one is that which results from the combination with a V1 whose argument structure is the same as that of *tsukeru* (middle comounds), and the other is that which results from the combination with a V1 whose argument structure is different (pure means compounds).

5.5.17.5.1. Middle compounds: *Nuri-tsukeru* 'smear-apply'

Tsukeru is combined with *nuru* 'smear', which is an alternating verb (type 11). The following examples illustrate.

(170a)
Mary wa kabe ni penki o nut-ta.
Mary TOP wall ALL paint ACC smear-PAST
Mary smeared paint on the wall. (**V1—L-linking**)

(170b)
Mary wa kabe ni penki o tsuke-ta.
Mary TOP wall ALL paint ACC apply/attach-PAST
Mary put paint on the wall[31]. (**V2—L-linking**)

(170c)
Mary wa kabe ni penki o nuri-tsuke-ta.
Mary TOP wall ALL paint ACC smear-apply-PAST
Mary smeared paint on the wall. (**Compound—L-linking**)

(170d)
Mary wa kabe o penki de nut-ta.
Mary TOP wall ACC paint INST smear-PAST
Mary smeared the wall with paint. (**V1—I-linking**)

When *tsukeru* 'apply/attach' and *nuru* 'smear' are compounded, the resulting compound only has L-linking even though *nuru* has the two linking patterns. This is an example of the right-headedness of compounds. Both *tsukeru* and *nuru* have an identical aspectual contour as that represented in Figure 44. (It is represented as the achievement construal.)

---

[31] This sounds as if Mary dirties the wall with paint without having the purpose of covering it.

Figure 44. Semantic structure for L-linking of nuri-tsukeru *'smear-apply' in (170)*

V1

wall   exist

ni

be located

paint   ***nuru***
'smear'

Mary   apply

Δ   t

V2

wall   exist

ni

be located

paint   ***tsukeru***
'apply,attach'

cause become
located

Mary

Δ   t

Compound

wall   exist

ni

be located
by being applied

paint   ***nuri-tsukeru***   *nuru tsukeru*
'smear-apply'

Mary   cause become
located by applying

Δ   t
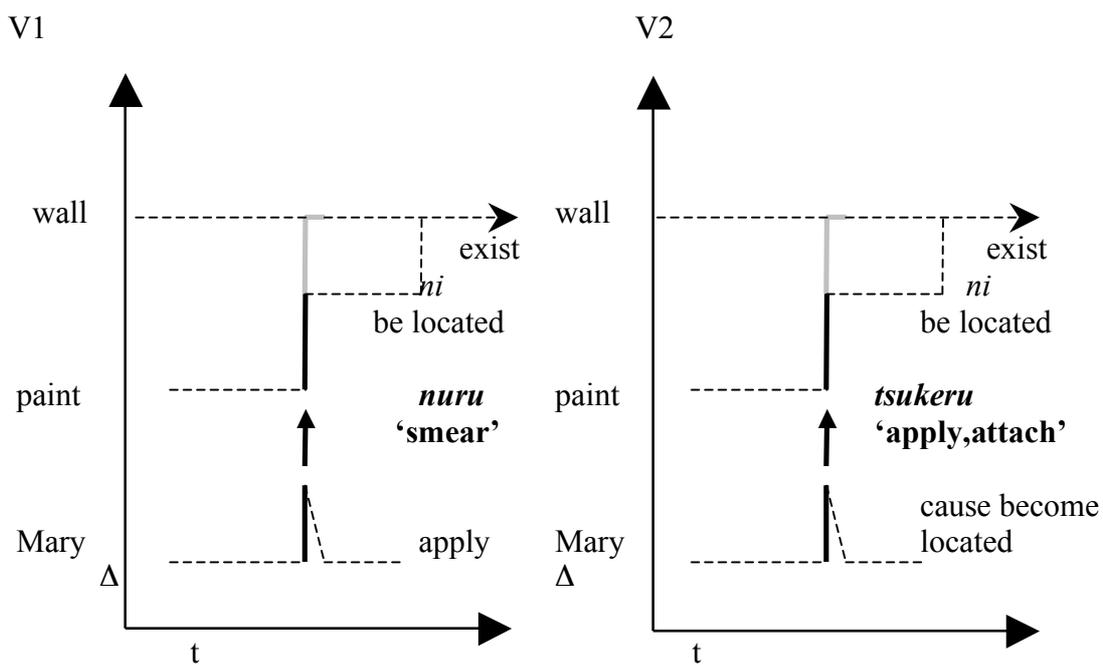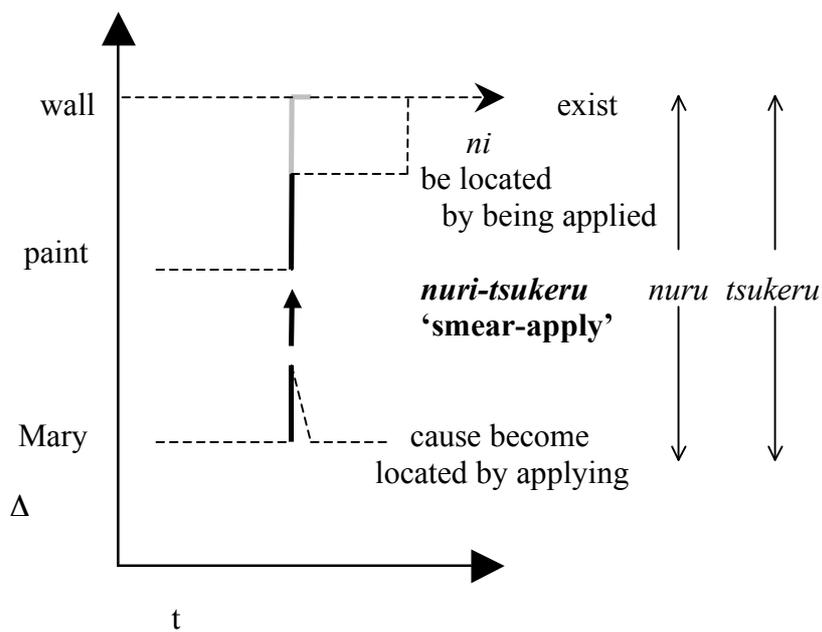
The two verbs profile the same part of the semantic representation. V1 simply specifies how the event denoted by V2 is carried out since the semantic structure of V1 instantiates that of V2.

5.4.17.5.2. Pure means compounds: *Nui-tsukeru* 'sew-attach'

Let us see the case of *nui-tsukeru* 'sew-attach', for which some examples follow:

L-linking

(171a)
Haha   wa   yunifoomu o   nut-ta.
mother TOP uniform   ACC sew-PAST
Mother sewed the/a uniform. (**V1**)

(171b)
Haha   wa   bajji o   yunifoomu ni   tsuke-ta.
mother TOP badge ACC uniform   ALL attach-PAST
Mother attached the badge to the uniform. (**V2—L-linking**)

(171c)
Haha   wa   bajji o   yunifoomu ni   nui-tsuke-ta.
mother TOP badge ACC uniform   ALL sew-attach-PAST
Mother sewed the badge onto the uniform. (**Compound—L-linking**)

(171d)
*Haha   wa   bajji o   nut-ta.
mother TOP badge ACC sew-PAST
*Mother sewed the badge. (**V1**)

Nuu 'sew' does not denote any caused-motion event in itself. It does not allow L-linking.

(171e)
*Haha   wa   bajji o   yunifoomu ni   nut-ta.
mother TOP badge ACC uniform   ALL sew-PAST
 Mother sewed the badge onto the uniform.

It has two senses; the creation of clothing by sewing and mending by sewing[32]. Both senses conventionally construe an event as an accomplishment and entail the activity construal on the agent.

---

[32] Croft points out (pers.comm.) that there are three kinds of transitive meaning of sewing in English as well as the intransitive meaning. As the intransitive, 'sewing' refers to a general activity of sewing and as the transitive, it has the meanings of (A) creation of clothing by sewing, (B) mending the defect by sewing, and (C) attachment by sewing. The following are examples:

intransitive (general activity of sewing):
    (i)   What is she doing?

(172a) creation sense:

    Haha   wa   atarashii yunifoomu o   nut-te-iru.

    mother TOP new   uniform   ACC sew-TE-IRU

    Mother is sewing a new uniform.

(172b) mending sense:

    Haha/isha   wa   hokorobi/kizuguchi o   nut-te-iru.

    mother/doctor TOP open.seam/cut   ACC sew-TE-IRU

    Mother is mending an open seam by sewing./Doctor is sewing up the cut.

I propose a semantic representation of *nui-tsukeru* 'sew-attach' as in Figure 45.

    —I think she is sewing.

transitive (creation by sewing):

    (ii) She is sewing a new dress for the Christmas party.

transitive (mending by sewing):

    (iii) She is sewing her torn skirt.

transitive (attachment by sewing):

    (iv) She is sewing the badge on the uniform.

On the other hand, Japanese *sew* has only two uses; creation and mending, which are equivalent to (ii) and (iii), respectively. Japanese uses a different phrase and construction for the intransitive use of sewing; *nui-mono o suru* (sewing-stuff/thing ACC do). Moreover, *nuu* 'sew' cannot be a three-argument verb as in English (iv). We need it to be compounded with *tsukeru* 'attach' to refer to attachment by sewing (see example (171c)). *Nui-tsukeru* cannot be replaced by *nuu* (see example (171e)).

Figure 45. Semantic structure of L-linking of nui-tsukeru *'sew-attach' in (171)*
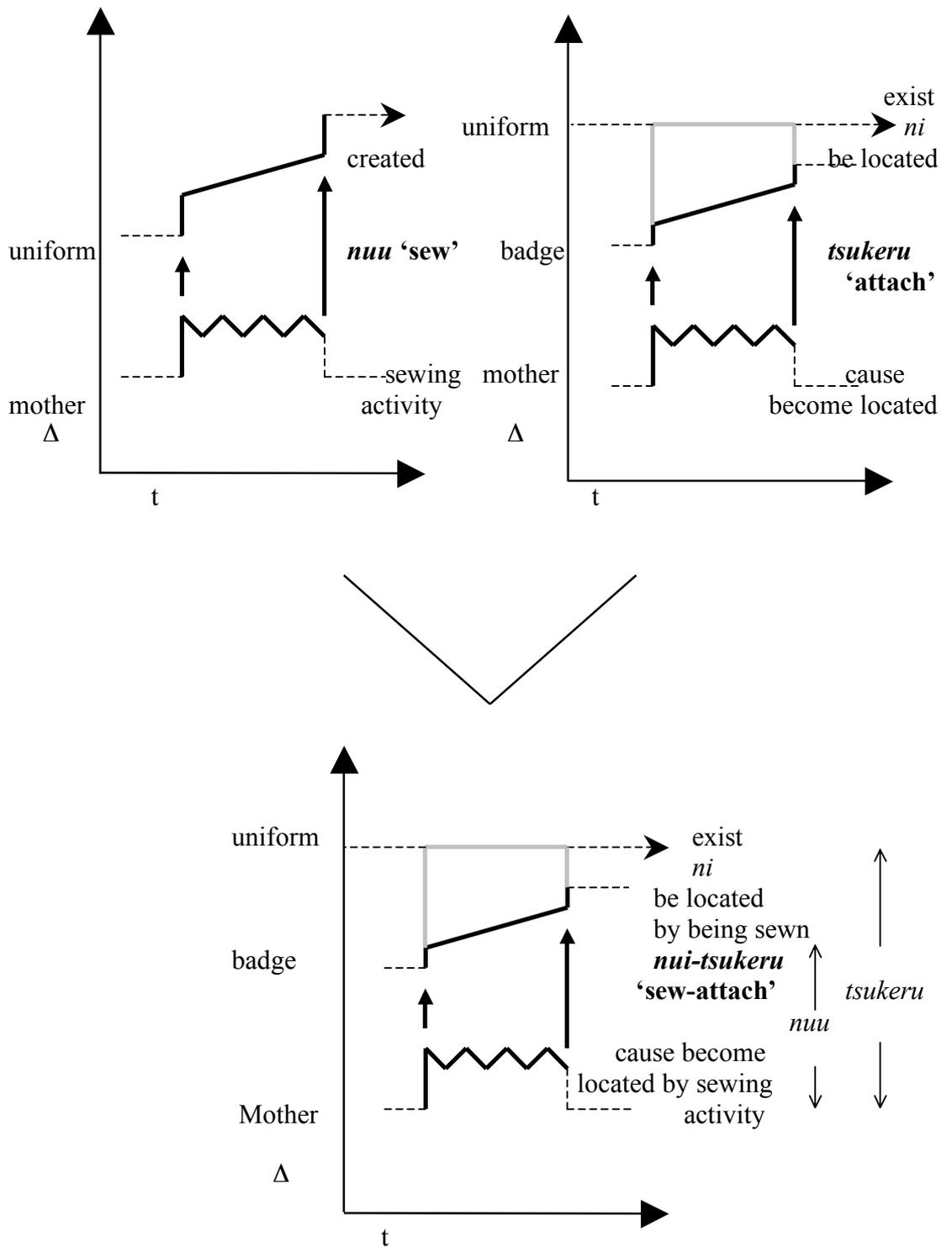
The semantic representations of *tsukeru* (V2) and *nui-tsukeru* (compound) are accomplishment version of the caused-motion event. *Nuu* (V1) is represented as having accomplishment construal of the creation sense. Actually, it does not matter for the current purpose whether one uses either the representation of the creation sense or the mending sense as these senses are not directly reflected in the compound version. What is important is that the verb is a two-argument verb and its subject has the activity aspectual contour[33]. Actually, even what *nuu* 'sew' selects as direct object is semantically different from what the compound selects as direct object (of (171a) and (171d)). (This happens to other compounds as well cf. *oshi-komu* 'push-put.into'). In this way, the agent's sewing activity counts in the representation of the compound, where sewing specifies the way of attachment. *Nuu* 'sew' is a two-argument verb and the act of sewing is carried upon the badge in the compound, so I represent the verb profile of *nuu* 'sew' as from the agent to the direct object in the model of the compound.

5.4.18. Type 18 *Ooi-kakusu* 'cover-hide' verbs: means compounds 3

5.4.18.1. Members

The following are the members of this verb type:

>   *ooi-kakusu* (cover-hide)
>   *ooi-tsutsumu* (cover-wrap)

5.4.18.2. Semantics

These verbs are compounds whose first part specifies the means by which the action of change of location denoted by the second part occurrs as in other means compounds. V2 components are verbs of putting that take I-linking.

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[33] It may be more appropriate to represent *nuu* as a simple intransitive activity though it does have this use as a full verb.

5.4.18.3. Syntactic patterns

This type takes I-linking and not L-linking. The compound in the following example is more likely to be used to cover non-spatial things such as the truth, or bribery scandals, in which case, GA-linking is used. (The hidden entity is realised as accusative).

I-linking

(173)
John wa hon no hyoushi o shinbunshi de ooi-kakushi-ta.
John TOP book GEN cover ACC newspaper INST cover-hide-PAST
John hid the cover of the book with newspaper.

*L-linking

(174)
*John wa hon no hyoushi ni shinbunshi o ooi-kakushi-ta.
John TOP book GEN cover ALL newspaper ACC cover-hide-PAST
John hid the cover of the book into newspaper.

GA-linking

(175)
Seihu wa jijitsu o ooi-kakushi-ta.
government TOP truth ACC cover-hide-PAST
The government hid the truth.

5.4.18.4. Causal and aspectual patterns

The causal pattern is that the agent acts on the figure to change the location to the ground. Not unlike with other covering verbs, the ground is construed to undergo changes by the figure being located in it and also the conventional aspectual construal of the verb is accomplishment. Concerning *ooi-kakusu*, *oou* 'cover' has the I-linking and *kakusu* 'hide' itself has L-linking ('putting in(to) sense') and I-linking ('cover sense') as discussed in type 12. *Oou* 'cover' as the means part specifies which sense of *kakusu* 'hide' is compatible with it. In this case, of course, the cover sense is approriate, so *kakusu* also has I-linking[34].

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[34] Note that it is not that the V1 verb selects the argument linking of V2. It only specifies the means. As we see, *kakusu* 'hide' has two meanings with two different construals according to the two linking patterns. *Oou* 'cover' simply limit one of the meanings, which happens to have a certain linking pattern. It is strange to say 'putting an entity into something by covering it', but it is not impossible to say

5.4.18.5. Semantic representations

The following are the example sentences with V1, V2, and the resultant compound

ooi-kakusu 'cover-hide'.

(176a)
John	wa	hon	no	hyoushi	o	shinbunshi	de	oot-ta.
John	TOP	book	GEN	cover	ACC	newspaper	INST	cover-PAST

John covered the cover of the book with a newspaper. (**V1—I-linking**)

(176b)
John	wa	hon	no	hyoushi	o	shinbunshi	de	kakushi-ta.
John	TOP	book	GEN	cover	ACC	newspaper	INST	hide-PAST

John hid the cover of the book with a newspaper. (**V2—I-linking**)

(176c)
John	wa	hon	no	hyoushi	o	shinbunshi	de	ooi-kakushi-ta.
John	TOP	book	GEN	cover	ACC	newspaper	INST	cover-hide-PAST

John hid the cover of the book with a newspaper. (**Compound—I-linking**)

The causal-aspectual analysis of *ooi-kakusu* 'cover-hide' is represented in Figure 46.

This is a middle compound, where V1 and V2 have the same argument structure. V1

specifies the way the action denoted by V2 is carried out, as we can see that the sense

that *kakusu* has is specified as the 'cover' sense by the V1. I represent the structure as

accomplishment, as example (176c) can get the directed activity reading with *te-iru*

though I do not give an example sentence here.

'covering something by covering it'.

Figure 46. Semantic structure of I-linking of ooi-kakusu *'cover-hide' in (176)*
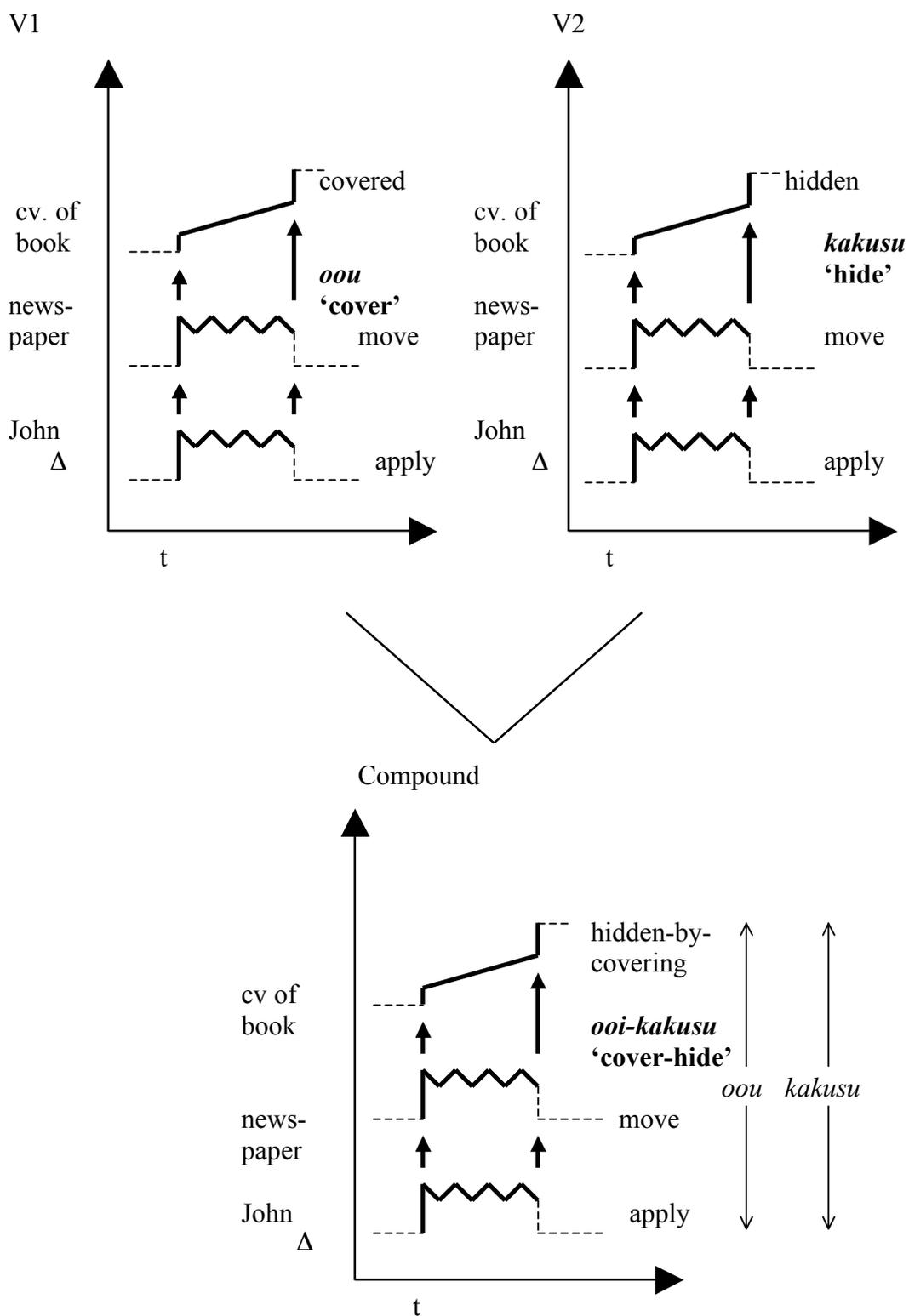
5.5. Digression on compounds

We have seen the integration of the semantic structures of V1 and V2 into compounds in the above analysis. I am now going to provide a tentative cognitive and constructional way of analysing the integration of compounds. This is a detailed version of the discussion entered into in §5.4.16.

Means compound verbs with type 2 verbs as V2 are equivalent to the English Path construction (Croft 2000: 85, §4.2) or the caused-motion construction (Goldberg 1995). Actually, type 2 verbs and also the productive V2 verb, *tsukeru* 'apply, attach', behave like English prepositions. The following are the proposed syntactic frames of *into* in English and of *~komu* 'put into' in Japanese.

(177)   English: [SBJ Verb OBJ *into* OBL]

ex. John pushed/pressed many clothes into his bag.

Japanese: [SBJ *wa/ga* OBJ *o* AdpOBJ *ni* V1 *~komu*]

ex.
John	wa	ooku	no	ihuku	o	kaban	ni	oshi-kon-da.
John	TOP	many	GEN	clothes	ACC	bag	ALL	push-put.into-PAST

John pushed many clothes into his bag.

Other spatial prepositions such as *out of* or *away from* can replace *into* in English, and other verbs of caused-motion can replace *~komu* with a possible alternation of the *ni* part with *kara* 'from' depending on the verbs in Japanese. The 'Verb' in English corresponds to the V1 verb in Japanese and *into* corresponds to *~komu* 'put into' with its spatial adpositional particle *ni*. Various types of verbs can appear as the 'Verb' in English and in 'V1' verbs in Japanese. In brief, English 'into OBL' corresponds to 'OBL *ni ~komu*' in Japanese. Since the English caused-motion verbs have been discussed extensively, I limit myself to discussing Japanese compounds with *~komu* as an example.

Komu 'put into' as the V2 component takes various kinds of verbs as V1. The examples we have seen are verbs of putting, verbs of exerting force, and verbs of creation. Others are verbs of throwing, sending and carrying, verbs of contact by impact, or activity verbs though I have not presented all of them here because of the limitation of the space. This means that verbs with different argument structures or different valency, or different causal structures can appear as V1. The argument structure of means compounds is inherited from V2 no matter what argument structure V1 gets[35].

The right-headedness of the argument structure and the semantic fact that V1 specifies the way V2 is carried out in means compounds in the earlier discussion are good reasons for regarding V2 as the construction where V1 is realised. We can call '~*komu* construction', and also can use 'the Path construction' or 'caused-motion construction' to cover other V2 verbs which entail caused-motion (such as *ireru* 'put.into' or *ageru* 'raise/lift'). Also the construction can be instantiated by V1 by being superimposed onto it. In §5.4.16., I mentioned that V2 is an e-site in Langacker's terminology, which the structure of V1 elaborates. I now present a more abstract schematic representation[36] of ~*komu* based on the convention in Croft (2000, §3 and 4).

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[35] I do not mean that any kind of verb can be V1. There should be some syntactic or semantic restriction as well. I leave the descriptions of constraints for further study. At least, there is a fundamental constraint which follows the principle of transitivity harmony (Kageyama 1993: 116-126). That is, a V1 which is compatible with ~*komu* or other verbs that entail the caused-motion sense should be a transitive verb.

[36] It is schematic in that it is abstracted away from extent on both t and Δ (See Croft 2000, §3.4).

Figure 47. tentative analysis of semantic structure for V2 ~komu as construction
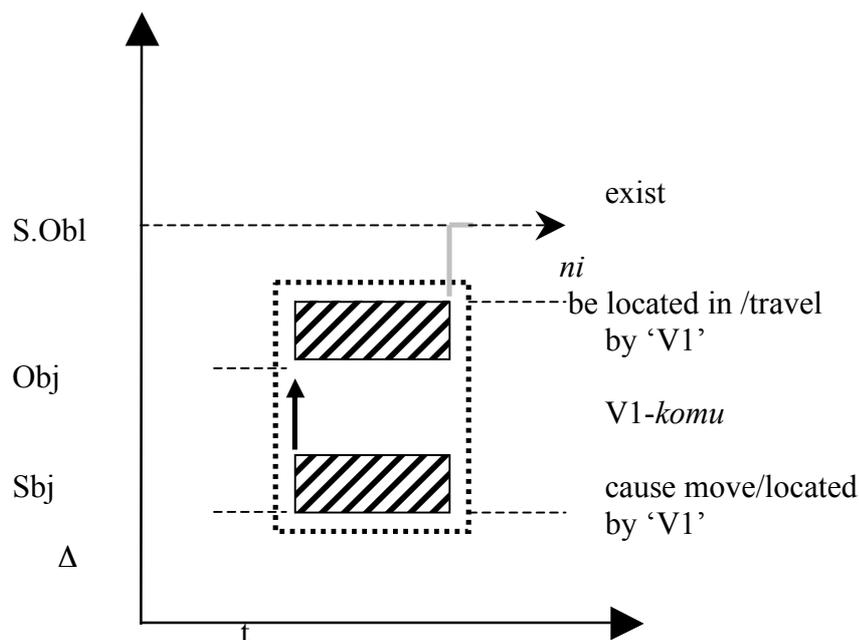
I leave the representation as schematic as possible. The aspectual contour of the subject is undirected and it goes back to the rest state after the event. The schematic striped box accommodates process (both punctual and extended). This is the same for the contour of the direct object. However, it undergoes the directed achievement after the event. There is only one arrow pointing from the subject to object indicating the causation. The two schematic striped boxes and one pointed arrow indicate that the event can be both extended causation and punctual causation. (In the case of extended causation, another arrow is needed between the right ends of the two striped boxes.) The grey vertical line to the contour of oblique means that the direct object ends up in a non-causal relation with the oblique. (In the case of extended causation, the non-causal relation should also be extended and indicated by other grey lines.) As a whole, it allows the achievement construal, the accomplishment construal, and the runup achievement construal. The dotted thick box is an e-site for V1 verb profiles. That is, the box is the minimum requirement for V1 indicating that V1 verbs should be

transitive (cf. the principle of transitivity harmony of compounds in Kageyama 1993: 116-126).

In the case of V1 verbs with a different argument structure from that of V2 as in pure means compound types, their semantic structures can be altered by superimposition including a semantic restriction or an aspectual contour on the direct object. As Langacker (1987: 305) mentions, there is a construal operation imposed by the semantic structure of V1 which elaborates the V2 construction whose substructure it comes to share.

The schematic constructional approach of ~*komu* can be valid with other V2 verbs of type 2 and at least, *tsukeru*. They are so productive and frequently used, that we could regard them as the grammatical constructions. This approach, actually, presupposes the right-headedness of compounds since the semantic structure (including the causal structure that is related to argument linking) of V2 is taken as the construction itself. This means that the argument structure of V2 is a determinant factor in the argument linking of compounds. If I extend this idea and specify the semantic structures of every V2 verb as constructions, it becomes more apparent that there is not even a clear distinction between the pair compounds and the middle compounds above. In middle compounds, V1 and V2 are just not semantically close enough to form pair compounds though their argument linking structure is identical and their arguments are referentially identical. Even the V1 of middle compounds normally entail the caused-motion sense itself. Actually, I have found it difficult to categorise some means compound verbs in my data because sometimes the distinction depends on the intuition about whether V1 has additional, specified, or subtly different meanings from V2. In that way, the definition of pair compounds of Matsumoto (1996: 202) and Kageyama (1993: 99) are not well articulated; the former only states

that 'pair compounds are composed of two component verbs that are identical in argument structure' and the latter says that 'two elements whose contents are equivalent are combined'. As I mentioned in relation to pair compounds of type 6, there are always subtle semantic differences, including semantic restrictions on arguments between the two different verbs (even though they are close enough to be recognised as synonymous), from the descriptive usage of *JSD* or *GJD*. That is, there is a gradient scale between pair compounds and what I call middle compounds in terms of the semantic closeness of V1 to V2.

Finally, at the opposite end of the constructional approach to compounds, there are frozen/idiomatic compounds, where the composite structure designates a totally different entity from those of each component strucutre.

I only presented the possibility of the constructional analysis of Japanese compound verbs here. Close examination of each V2 verb will be left for the future study.

5.6. Summary

In this chapter, I have classified verbs of putting in Japanese into eighteen categories, in terms of syntactic behaviour, mainly by argument linking patterns. I present a brief table describing each category in Appendix C. The table shows (1) the class number (CLS), and (2) the subclass (Scls) number where there is one, (3) the name of the types, (4) the number of members, (5) syntactic patterns, (6) the acceptability of source phrase, (7) the other syntactic patterns they manifest, (8) aspectual patterns, and (9) other prominent characterstics. For (5) syntactic patterns, there is an FA-type column (L-linking, FA-linking), a GA-type column (I-linking, GA-linking), a GO-linking; 'FA-type' indicates whether the verbs in question take FA-type linking or not,

'GA-type' indicates if they take GA-type linking or not. 'Source' indicates if verbs a source phrase instead of a goal phrase, and 'Other syntactic patterns' specifies other special syntactic patterns they take. In 'aspect', I only specify if verbs favour a 'punctual' or 'extended' construal conventionally, as situations and contexts allow a variety of aspectual patterns. When they get the activity in progress reading with *te-iru* (except as the runup achievement reading), I specify them as 'extended' and if not, then I specify them as 'punctual'. With some types of verbs which aspectual pattern is more conventional is very ambiguous; verbs of the same category can have different patterns or the same verb shows an ambiguity. In that case, I put both 'punctual' and 'extended'.

Appendix D indicates what verbs belong to what class.

5.6.1. Locative alternation

Japanese has a limited number of verbs of putting which manifest the locative alternation. These include four simple verbs of type 11 *decorate* verbs (four simple verbs plus two compound verbs that are related to simple verbs), type 12 *wrap* verbs (four verbs), and type 15 *afforest* verbs (three verbs). Type 12 verbs manifest two linking patterns because they have two different figure and ground construal. In type 11 and type 15, figure and ground alignment is identical in L-linking and I-linking. The subtle semantic differences between the two syntactic patterns discussed in the relevant sections are captured in the differences of semantic structures including verbal profile. Most of type 11 and type 15 verbs relate to events of filling and covering and have an accomplishment construal. A verbal scale is associated with the figure in L-linking and with the ground in I-linking in accomplishment construals. Also, a 'trivial verbal scale' in the achievement reading is associated with the figure in

267

L-linking and with the ground in I-linking. In both cases, the ground is construed as a mere reference point where the figure is located or moves to in L-linking and as a participant undergoing a change of state in I-linking. Thus, the holistic interpretation of the ground in the I-linking in Japanese (*with*-variant in English) is well illustrated in the semantic representation of verbs.

5.6.2. Semantic structures of each argument linking construction

In the discussion of alternating verbs, I have shown that these verbs get different senses in the two linking patterns. That is, specific construction contribute different construals of the events denoted by particular verbs, though if a certain verb can occur in a construction is a verb-specific conventional property. This conforms to the basic idea of cognitive linguistics that the constructions also have semantic import. Therefore, it is necessary to give a semantic representation for each linking construction, after having seen a lot of example Figures. The following are schematic representations of each construction.

5.6.2.1. L-linking construction

The semantic structure of L-linking is shown as follows:

Figure 48. Semantic structure of L-linking
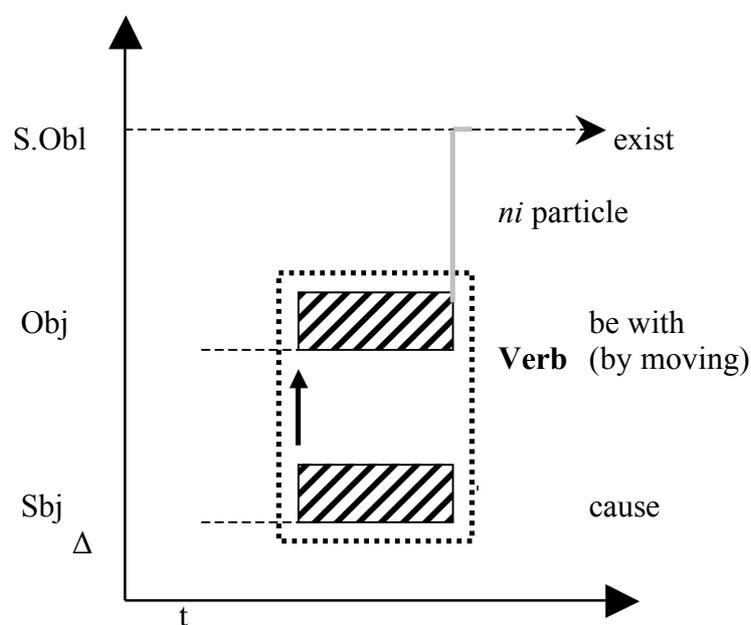
This is the abstract representation minimising the information to accommodate various occurences in actual examples. The striped boxes for Obj and Sbj accommodate process (activity and achievement). The single arrow from Sbj to Obj indicates that the causal relation holds between the two; the subject applies some force on the direct object. The grey line indicates that there is a non-causal relation between the direct object and the adpositional oblique, at least, which is true at a point in time. The adpositional object is treated as a reference point. This abstract representation allows the achievement construal (as in Figure 2), the accomplishment construal (as in Figure 3), the undirected activity construal (as in Figure 28), and also allows the possibility of the runup achievement construal though I have not illustrated one of these in the Figures so far. The grey part is profiled by the subsequent oblique marker *ni* and the thick dotted box is profiled by the verb which elaborates the construction.

The labelling for each contour is also very abstract. The subject only causes the direct object to be in spatial contact with the ground. The ways of causing can be various. The direct object ends up by being together with the subsequent oblique, which in turn serves as a mere reference point. The L-linking is predominant in verbs of putting in Japanese and is even used for verbs of filling.

5.6.2.2. I-linking construction

The following is the semantic structure of I-linking:

Figure 49. Semantic structure of I-linking
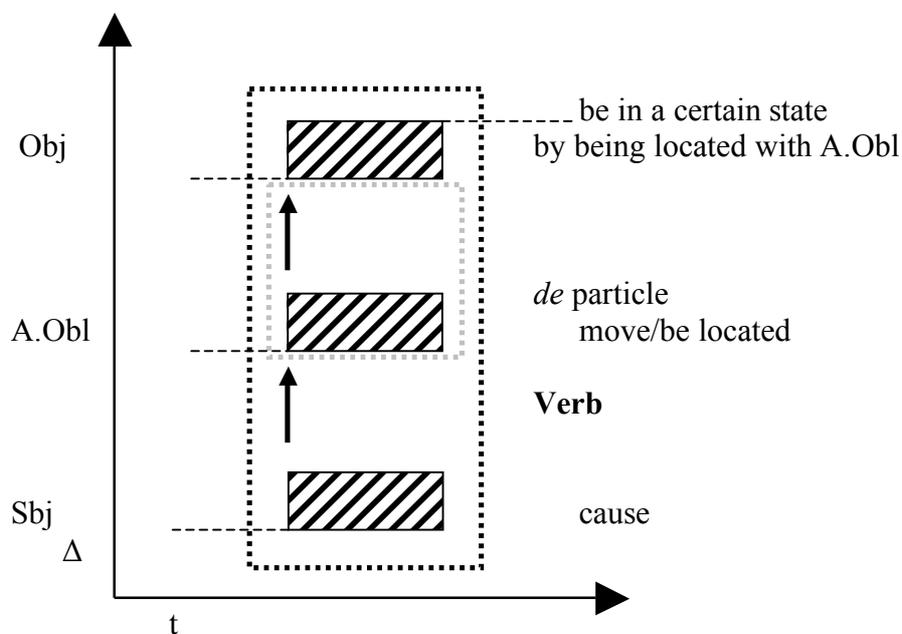
This is again an abstract representation. The striped boxes for each contour allow different aspectual construal for verbs with this construction. The thick arrows indicate that the subject acts on the adpositional object, which, in turn, acts on the direct object. What is definite with this construction is that the direct object undergoes the change of state at the end of the event, which is indicated by the broken line on the right top part of the aspectual contour of the direct object. The thick dotted box is an

e-site for the verbal profile. The adpositional profile (indicated by the grey dotted box) overlaps with that of the verbal profile. It is represented by the adpositional object contour plus the arrow from it to the direct object. (cf. English *with* of Croft 2000: 65, Figure 12, §3.4). It accommodates the achievement construal as in Figure 19 and the accomplishment construal as in Figure 20.

The labelling for the subevent of the direct object shows that it undergoes a certain 'unspecific' change. For the antecedent oblique, there are two choices: move or be located. The labelling of the subject remains abstract as "cause".

Verbs which appear with I-linking are verbs of covering, blocking, and filling, and "change-of-state" verbs.

5.6.2.3. FA-linking construction

As the main focus in the thesis is three-argument linking, I have not said a lot about the two-argument linking. The following, however, is a tentative illustration of the semantic structure for FA-linking.

Figure 50. Semantic structure of FA-linking with verbs of putting
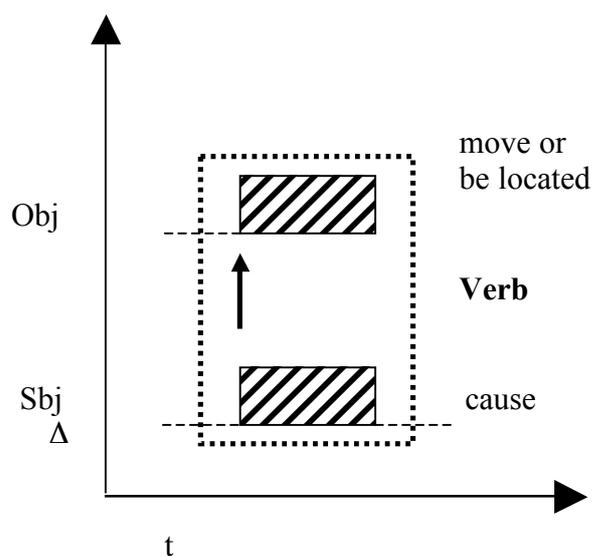
The striped boxes indicate process and the single arrow indicates the force-dynamic relation between the subject and direct object. After the event, the subject goes back to the rest state, while it is not clear whether the direct object undergoes the directed process or goes back to the rest state. The schematic representation accommodates the achievement construal (as in Figure 6) and the undirected activity construal (as in Figure 13).

5.6.2.4. GA-linking construction

Schematically, GA-linking is similar to FA-linking except for some minor points.

Figure 51. Semantic structure of GA-linking with verbs of putting
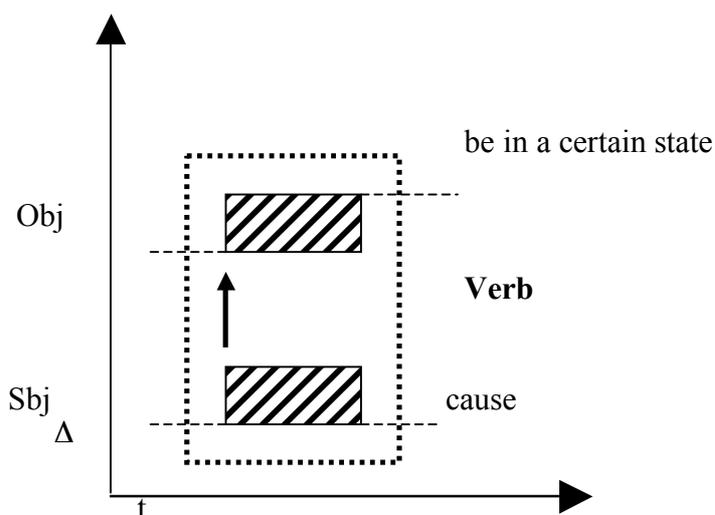
The only schematic difference from FA-linking is that the direct object undergoes a change of state in its subevent. Correspondingly, the labelling for its subevent is also different. The schematic representation accommodates the achievement construal as in Figure 21 and the accomplishment construal as in Figure 24.

5.6.2.5. GO-linking construction

GO-linking appears only in figure incorporation types (type 14 and type 15). The following is the semantic structure of GO-linking:

Figure 52. Semantic structure of GO-linking
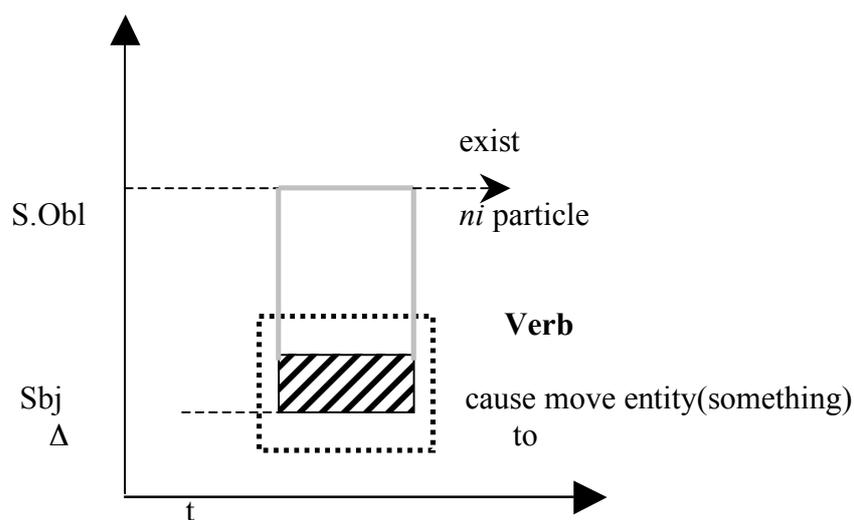
The subject's act is a process of causing a certain entity to move. Whether it undergoes the directed transition after the process is not known. The entity assigned to the subsequent oblique is a mere location where the entity is moving to and located with. It accommodates the undirected activity construal as in Figure 36 and the accomplishment construal as in Figure 39.

5.6.3. Comparison with English

Unlike English, Japanese does not have a lot of verbs of putting with GA-type linking. This also leads to the drastically small number of locative alternation verbs. The three simple verbs of type 11 (except *kazaru* 'decorate') and the three figure incorporation verbs which manifest alternation (type 15) refer to events of covering and filling whose conventional aspectual pattern is accomplishment. Only *kazaru* is different and the English equivalent to this verb 'decorate' does not alternate. All

these verbs with alternation are explained to have different senses in the two (L and I) linking constructions which are caused by two construals. They differ in relation to which of the participants the verbal scale is associated with. When it is assigned to the figure, L-linking is realised. When it is assigned to the ground contour, it takes I-linking.

The tendency of Japanese toward L-linking is shown in figure incorporation type 1 (type 14). Even in the complete incorporation pattern, verbs of this type assign oblique case to a sole argument (ground) other than the agent. On the other hand, English verbs of figure incorporation type take GA-linking equivalent (the ground is realised as Accusative).

In Japanese, there are also verbs of filling, covering, and surrounding that takes L-linking **only**; *haru* 'fill (pour to the full)', *tataeru* 'fill', *kabuseru* 'cover (put over)', and *megurasu* 'surround (put around)'. All these classes of verbs have the *with*-variant or the locative alternation (with the locative variant) in English. That is, even verbs which semantically refer to the event of causing a change of state on the part of the ground can be realised in L-linking in Japanese.

Another interesting comparison is that Japanese is rich in compounds and makes a lot of caused-motion compounds. As I discussed above, the Japanese caused-motion verbs with specified direction (type 16) are productive and roughly correspond to English locative prepositions in their use. Therefore, I categorises Japanese caused-motion verbs according to the various kinds of V2 verb used in compounds. English, on the other hand, categorises them differently according to main verbs which designate means (cf. Levin (1993)). I have also proposed the way to analyse the structure of Japanese compound verbs using Langacker's valence relation.

Finally, in collecting Japanese equivalents of English verbs of putting, verbs of other classes were found. There are some recurring classes; not suprisingly they are three-argument verbs[37]. This suggests that even boundaries between classes of three-argument verbs may vary between English and Japanese. This requires me to look into many more classes of verbs, but I shall leave this for future study.

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[37] These verbs are represented in the appendix of verbs of putting as Type 20-1 to Type 20-6, respectively in Appendix D.

6 VERBS OF REMOVING

6.1. Introduction

This chapter discusses verbs of removing, which are semantically the opposite of verbs of putting; they relate to removing an entity from a location. However, they do not always show opposite syntactic behaviour because of the asymmetry in the world knowledge of putting and removing, which will be discussed later. Verbs of removing in English are classified in chapter of 10 in Levin's (1993) book. For her detailed classification, see Appendix E.

6.2. Basic linking patterns

The three arguments of verbs of removing are the agent (A), the figure (F), and the ground (G) as in the case of verbs of putting; in verbs of removing, the figure basically refers to an entity, a person, a possession, or an inalienable part of something which is removed and the ground refers to a location, a place or a possessor from which the figure is removed. There are two main argument linking types in Japanese verbs of removing. These are the figure-accusative (FA) type and the ground-accusative (GA) type depending on which of the arguments appears as the direct object.

FA-type constructions (3 linking patterns):

A-linking construction (Ablative-linking):
    figure—*o* (ACC), ground—*kara* (OBL)

(1)
    Oliver wa   zubon   kara yogore o   otoshi-ta
    Oliver TOP trousers ABL   stain   ACC remove-PAST
    Oliver removed the stain from his trousers.

This is similar to the L-linking of verbs of putting in that the figure is the direct object and the ground is realised as the oblique. Ablative *kara* is used instead of Allative *ni*. I

call this A(blative)-linking[1].

Another type of FA type linking is G(enitive)-linking.

G-linking construction:
ground—*no* (GEN), figure—*o* (ACC)

(2)
Graham wa   ringo no   kawa o   mui-ta
Graham TOP apple GEN skin   ACC peel-PAST
Graham pared an apple.

The figure is marked as Accusative and the ground is marked with Genitive, which

modifies the figure[2].

Finally, FA-linking marks the figure as accusative as the only syntactic argument

other than the subject.

FA-linking construction:
figure—*o* (ACC)

(3)
John wa   otsuri o   gomakashi-ta
John TOP change ACC pocket-PAST
John pocketed the change.

GA-type construction (ground-accusative):

Japanese is said to lack an equivalent construction to the English *of*-variant of the

locative alternation as in *Doug cleared the table of dishes*[3]. Croft (2000: 85, §4.2)

calls this the antecedent oblique *Of* construction. When the ground is the direct object

in verbs of removing, it is the only argument other than the subject.

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[1] In spatial removal or motions, *kara* can be replaced by *yori* 'from'.

(i)
Jacqui wa   tori no   su yori tamago o   tot-ta.
Jacqui TOP bird GEN nest ABL egg   ACC steal-PAST
Jacqui stole eggs from the birds' nest.

[2] *Nihongo Goi Taikei* [Japanese Vocabulary Compendium] lists this linking as an independent
construction.

[3] I shall argue later that there is Reversed A-linking in Japanese and this will be equivalent to this
English construction.

GA-linking construction
ground—*o* (ACC), figure—omitted

(4)
Taro wa   teeburu o   katazuke-ta
Taro TOP table   ACC clear-PAST
Taro cleared the table.

(5)
Taroo wa   zubon   o   arat-ta.
Taroo TOP trousers ACC wash-PAST
Taroo washed the trousers.

In the above examples, both the trousers and the table are the 'ground' in that they are the location from which something is removed. This 'something' is the unexplicit 'figure' which is implied in the verbs' lexical meanings.

6.3. Japanese Genitive *no* and the semantic relation between figure and ground

The compatibility of G-linking with verbs is related to the semantic relation between the figure and the ground since the Genitive marker is the one which links two NPs. However, this does not mean that the verbs' meaning is not related to the linking at all. It is 'indirectly' related in that a certain event denoted by a verb is likely to set constraints on the semantic properties of its arguments. For example, the situation denoted by *muku* 'peel' entails removing the 'covering entity' in a whole-part relation such as the skin of an apple. The relation between *skin* (the figure and a part of the ground) and *apple* (the ground) fits in to the core use of Genitive *no* in Japanese: 'A modifies B and indicates a specific member(s) of B among all the members of B' (Makino 1986: 314) in A *no* B. The skin of an apple is a 'member' of an apple. Therefore, we can predict that *muku* 'peel' will get the Genitive linking.

The combination of a noun plus Genitive can modify nouns quite extensively. When we have 'A (noun) *no* (GEN) B (noun),' the relations that can hold between the

two nouns, A and B, can be as follows:

(6) some common uses of Genitive *no* (A *no* B):

    (A)   A is the possessor of B.
            ex. *watashi no hon* (I GEN book=my book)

    (B)   A is the location where B exists.
            ex. *tana no hon* (shelf GEN book= a book on the shelf)

    (C)   B is about/on A.
            ex. *rekishi no hon* (history GEN book= a book on history)

    (D)   A is a specific kind of B.
            ex. *haadokabaa no hon* (hardcover GEN book = a hardcover book)

    (E)   A is the object and B is the subject.
            ex. *nihongo no sensei* (Japanese GEN teacher = teacher of Japanese)

    (F)   A created B.
            ex. *Picasso no e* (Picasso GEN painting = painting of Picasso)

    (G)   A is an attribute of B.
            ex. *shachou no Tanaka san* (president GEN Mr. Tanaka)

    (H)   B is made of /from A.
            ex. *Hitsuji no miruku* (sheep GEN milk = sheep's milk)

(*A Dictionary of Basic Japanese Grammar* 1986: 314)

Unlike verbs of putting where the figure and ground are entities of separate existence, those in verbs of removing show various ways in which the two entities are 'attached' before one is taken away. As some verbs lexically specify the semantic relation of the figure and the ground and this is also related to the use of G-linking, I shall propose some semantic types that the figure and ground hold in verbs of removing. The relations between the figure and the ground may be locational, a whole-part relation, possessional or identificational. The conditions applying to these are outlined in the following:

(7)   The relations between the figure and the ground

  1. **Locational**
Figure and ground are separate entities. The ground is a location where the figure exists. In this relation, we can say 'figure *wa* ground *ni aru/iru*' (figure TOP ground LOC exist). The following are some subtypes of locational relations.

  1.1 **Pure locational**
As the term shows, the relation is purely locational. Examples of this are 'weed and lawn', 'water and bucket' or 'John and the house'.

1.2 **Impurities locational**

The figure is an unfavorable or unnecessary thing that should be removed. It does not normally have an 'independent' status of existence normally. 'Dust on the table' or a 'stain on the shirt' will diminish after being removed.

1.3 **Attachment**

This is a marginal case. The degree of closeness between the figure and the ground is between a 'pure location' and 'a whole-part relation', which will be discussed next. 'The wallpaper on the wall' can be thought to be attached to the wall forever unless a certain external force is applied though the two were originally independent entities. It is awkward to say that 'the wallpaper exists on the wall' in Japanese.

1.4 **Extended locational**

The notion of location can have the extended sense of referring to more abstract relations such as 'John in Lloyds Bank' or 'Steve in the dance society'. The places do not necessarily indicate that the person is in these places, rather they refer to organisations or groups that people belong to.

2 **Whole-part relation**

This relation is exemplified by 'skin and apple' or 'juice and lemon'. The figure is a part of the ground and the two are fully integrated as one entity. (Naturally, there are not apples without skin nor lemons without juice).

3 **Possessional**

This refers to the relation of possessor and possessum as in 'John and his car' or 'Jacqui and her money'. This relation can be extended to a more abstract 'possessional' notion such as 'John and his job' or 'Jacqui and her duty' (**extended possessional**).

4 **Identificational**

This refers to the relation between a person and his/her identification such as 'Dr. Tanaka as a professor' and 'Mr. Woodall as the president of the company'.

I shall use these terms in discussing verbs of removing.

Thus, the grammaticality of G-linking with a certain verb of removing should be measured by the compatibility between the semantic structure of the G-linking construction and that of the verb and how the semantic relation between figure and ground which are required by the verb fits into the descriptive use of the Genitive in the examples in (6).

6.4. Classification

As in the previous chapter, verbs of removing in Japanese are classified and discussed in terms of members, semantics, syntactic patterns, causal and aspectual patterns, and semantic representation. Concerning syntactic patterns, the main concern is whether verbs take FA-type linking or GA-type linking or both. Some verbs of a same class may behave slightly differently regarding G-linking or FA-linking. In this case, I may subcategorise them as different subtypes of the same class. A table of the classifications and a list of verbs of removing are attached in Appendices F and G.

6.4.1. Type 1 *Tori-nozoku* 'remove' verbs

6.4.1.1. Members

The following are some members of this verb type:

> subtype 1: *tori-nozoku* 'remove' type
> *tori-nozoku* 'remove', *nozoku* 'remove', *toru* 'remove, take', *nuku* 'remove',
> *harau* 'remove', *hazusu* 'detach', *tep.pai-suru* 'abolish',
> *boku.metsu-suru* 'exterminate', *habuku* 'omit',
> *kesu* 'delete', *mas.shou-suru* 'delete, cross out'

> subtype 2: *hiku* 'subtract' type
> *hiku* 'subtract', *sashi-hiku* 'deduct', *kou.jo-suru* 'subtract'

6.4.1.2. Semantics

Verbs of this type are the general 'removing' type. They indicate removing an entity away from another, taking an entity away from another entity, a location, or a person, or eliminating, deleting, subtracting, omitting an entity from something. Some verbs (such as *nozoku* 'remove' or *toru* 'remove') denote 'abstract' removing situations like removing feelings of worry/pain from somebody's heart. The figure is normally an unnecessary or unfavorable thing. Some of the simple verbs of this category are extensively used as V2 components of compound verbs of removing (cf. §6.4.18).

6.4.1.3. Syntactic patterns

Type 1 verbs take A-linking ((8)-(10)) but not GA-linking (17). Depending on contexts (specifically, on the semantic relations between the figure and the ground), G-linking is either acceptable or less acceptable. 'Locational' relation, 'whole-part' relation, 'attachment', 'possessional' relations are more acceptable in G-linking. Most verbs of this category may appear in FA-linking especially when the figure is of the impurities locational type (even in an extended abstract sense such as 'remove **violence** from the town') and can disappear after being removed. Only subtracting verbs such as *hiku* 'subtract' strictly prohibit FA-linking (15) and G-linking (13), which are the reasons these are categorised as another subtype. Examples of type 1 verbs with various linking patterns follow:

A-linking

(8)
Jacqui wa   shibahu kara zassou o   tori-nozoi-ta.
Jacqui NOM lawn   ABL weeds ACC remove-remove-PAST
Jacqui weeded the lawn.

(9)
Karera wa   kaiin   meibo kara John no   namae o   keshi-ta.
they   TOP membership list   ABL John GEN name   ACC delete-PAST
They eliminated John's name from the membership list.

(10)
Kodomo wa   hyaku   kara juugo o   hii-ta.
child   TOP one.hundred ABL fifteen ACC substract-PAST
The child subtracted fifteen from one hundred.

G-linking (depends)

(11)
Jacqui wa   shibahu no   zassou o   tori-nozoi-ta.
Jacqui TOP lawn   GEN weeds ACC remove-remove-PAST
Jacqui weeded the lawn.

(12)
?Karera wa   kaiin   meibo no   John no   namae o   keshi-ta.
they   TOP membership list   GEN John GEN name   ACC delete-PAST
They eliminated John's name in the membership list.

(13)
*Kodomo wa   hyaku   no   juugo o   hii-ta.
child   TOP one.hundred GEN fifteen ACC substract-PAST
The child substracted fifteen of one hundred.

FA-linking (depends)

(14) Jacqui wa   zassou o   tori-nozoi-ta.
      Jacqui TOP weeds ACC remove-remove-PAST
      Jacqui removed weeds.

(15) *Kodomo wa   juugo o   hii-ta.
      child   TOP fifteen ACC subtract-PAST
      *The child substracted fifteen.

*goal phrase instead of source phrase

(16) *Karera wa   dokoka   ni   John no   namae o   keshi-ta.
      they   TOP somewhere ALL John GEN name ACC delete-PAST
      *They eliminated John's name to somewhere.

*GA-linking

(17) *Jacqui wa   {zassou de}   shibahu o   tori-nozoi-ta.
      Jacqui TOP {weeds INST} lawn   ACC remove-remove-PAST
      *Jacqui removed the lawn of weeds.

For situations of physically/spatially removing something away, the adverbial phrase

kirei ni 'clean RESULT,' whose meaning of leaving no marks or dirt, may be added

and changes the situation from a directed activity to an accomplishment.

(18) Jacqui wa   shibahu kara kirei ni   zassou o   tori-nozoi-ta.
      Jacqui TOP lawn   ABL clean RST weeds ACC remove-remove-PAST
      Jacqui weeded the lawn completely.

6.4.1.4. Causal and aspectual patterns

Verbs of this type refer to an event of the agent's acting on the figure and taking it

away from the ground. They vary aspectually, being either punctual (achievement) or

extended (directed activity, runup achievement or accomplishment). The removing of

weeds as in (8) is interpreted as directed activity or accomplishment as the

sukoshizutsu 'little by little' test (test for directed process) and the *tochuumade*

'halfway' test (test for accomplishment reading of event) in the following examples

show.

sukoshizutsu 'little by little' test

(19)
Jacqui wa   shibahu kara zassou o   sukoshizutsu tori-nozoi-te-iru.
Jacqui TOP lawn   ABL weeds ACC little.by.little remove-remove-TE-IRU
Jacqui was weeding the lawn little by little.

tochuumade 'halfway' test

(20)
Jacqui wa shibahu kara zassou o   tochuumade kirei ni   tori-nozoi-ta.
Jacqui TOP lawn   ABL weeds ACC halfway   clean RST remove-remove-PAST
Jacqui weeded half the lawn.

Sentence (19) does not necessarily entail the event as an accomplishment even though in the real context, we cannot keep on removing weeds from the lawn. The quantity of weeds which exists in the lawn is already determined though it is not described in a linguistic expression. However, the agent can still engage in the activity of moving weeds away without causing an apparent change of state of the ground (the lawn). The following sentence is better analysed as having a directed activity reading.

(21)
Jacqui wa   shibahu kara zassou o   tori-nozoi-ta ga mada sukoshi nokot-te-iru.
Jacqui TOP lawn   ABL weeds ACC remove   but still   some   remain-TE-IRU
Jacqui removed weeds from the lawn, but there is still some remaining.

Other more 'abstract' events of removing/eliminating like eliminating a name from a list are better construed as punctual as it is difficult to see intermediate stages of the events.

6.4.1.5. Semantic representations

The semantic structures for the directed activity construal, the accomplishment construal and the achievement construal of type 1 verbs are represented in Figures 1-4. The spatial source (a location from which something is moved) is expressed in verbs of removing instead of the goal as in verbs of putting. The agent applies force on the figure, which is indicated by force-dynamic solid arrows, and the relations between the figure and the ground are represented by the non-force-dynamic grey lines. In G-linking, the number of participants is reduced to two as is the number of contours.

Figure 1. directed activity construal of A-linking of tori-nozoku *'remove' in (8)*
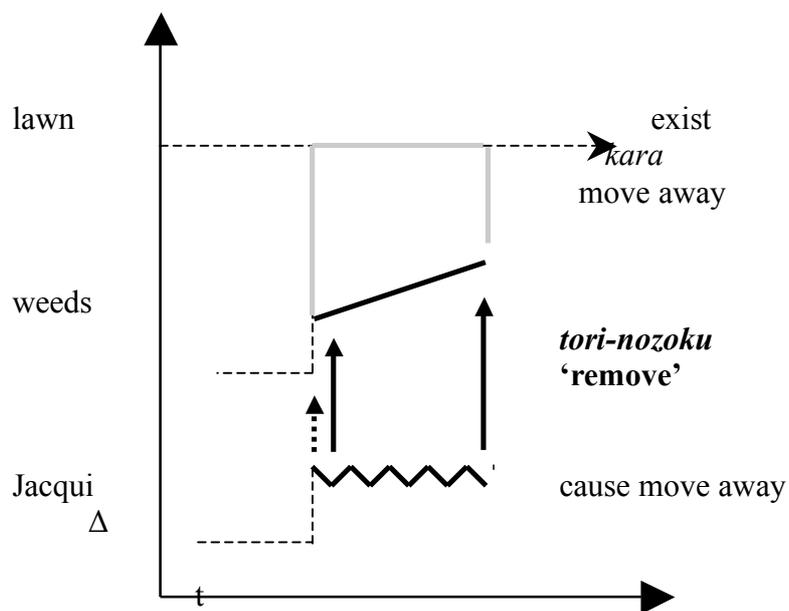
Figure 2. accomplishment construal of A-linking of tori-nozoku *'remove' in (8) and (20)*
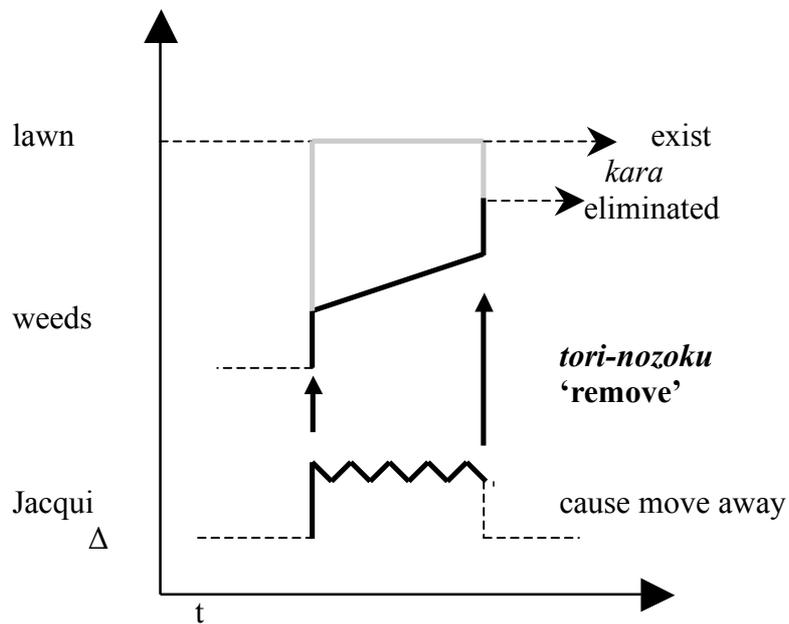
Figure 3. accomplishment construal of G-linking of tori-nozoku *'remove' in (11)*
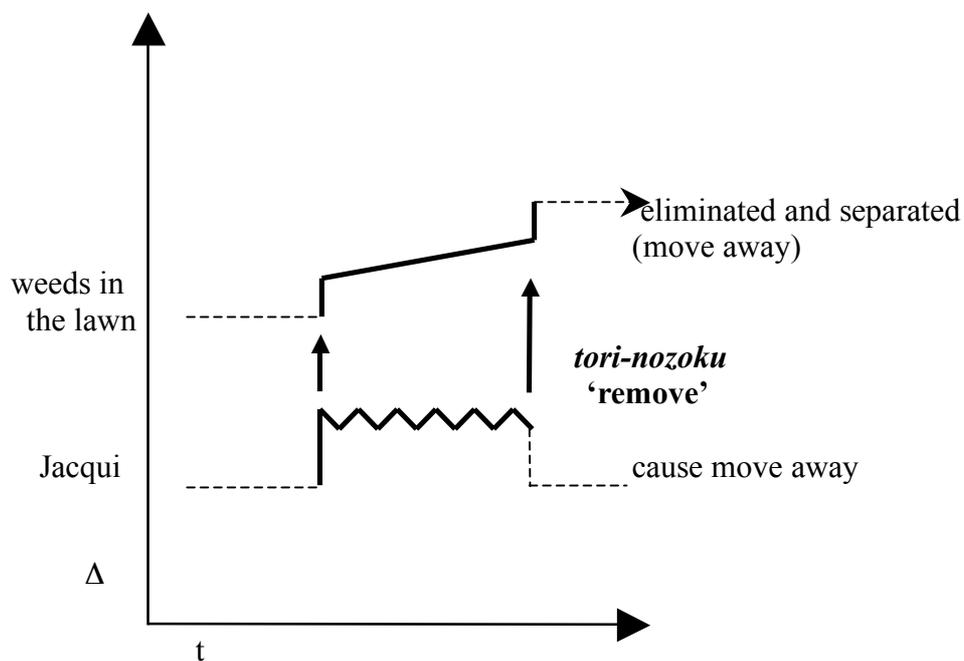
Figure 4. achievement construal of A-linking of kesu *'delete' in (9)*
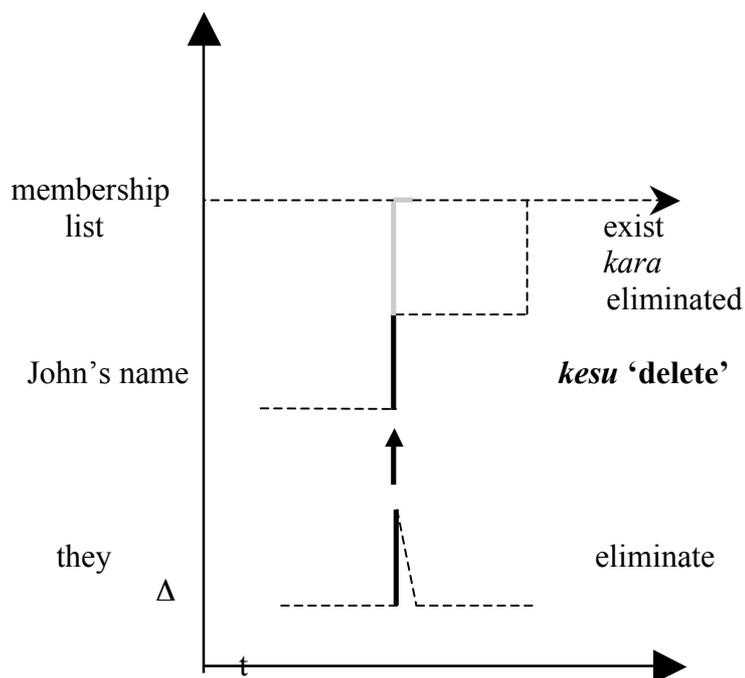
6.4.2. Type 2 *Dasu* 'take out' verbs: spatial caused-transfer verbs with a specified direction

6.4.2.1. Members

The following are members of this verb type:

> subtype 2-1(spatial direction):
>   *dasu* 'take out', *modosu* 'return', *kaesu* 'return'
> subtype 2-2 (removing of spatial transfer):
>   *nokeru* 'put aside/away', *dokeru* 'put aside/away'

6.4.2.2. Semantics

Verbs of this type refer to a spatial transfer of an entity from one location to another. The first subclass of the category is equivalent to type 2 verbs of putting which entail the direction of caused-motion. Verbs can have an overt expression of goal as well as source (*kara*). That is, they have L-linking (goal phrase only) or a path pattern (goal phrase and source phrase). The second subclass refers to taking away/removing something unfavorable or improper from the ground. These verbs do not specify direction but are still better categorised as indicating spatial transfer because they can take a goal phrase (with/without a source phrase) specifying where the figure ended up after being taken away/removed from the original source. The relation between the figure and the ground is locational.

6.4.2.3. Syntactic patterns

Type 2 verbs allow A-linking, and also a path pattern (with a goal phrase), but do not take GA-linking. The following examples illustrate:

A-linking

(22)
John wa kobune o kishi kara dashi-ta.
John TOP boat ACC shore ABL take.out-PAST
John took a boat off the shore.

(23)
Patrick wa   heya kara isu   o   noke-ta.
Patrick TOP room ABL chair ACC put.aside-PAST
Patrick put the chair away from the room.

with goal phrase (L-linking or Path pattern)

(24)
John wa   kobune o   {kishi kara} oki   ni   dashi-ta.
John TOP   boat   ACC {shore ABL} offing ALL take.out-PAST
John took a boat {off the shore} to the offing.

(25)
Patrick wa   {heya kara} ima   ni   isu   o   noke-ta.
Patrick TOP {room ABL} living.room ALL chair ACC put.aside-PAST
Patrick put the chair away (from the room) to the living room.

*GA-linking

(26)
*John wa   kishi o   {kobune de}   dashi-ta.
 John TOP shore ACC {boat   INST} take.out-PAST
*John took out the shore with a boat.

(27)
*Patrick wa   heya o   {isu de} noke-ta.
 Patrick TOP room ACC {chair INST} put.aside-PAST
*Patrick put the room away with the chair.

?G-linking

(28)
?John wa   kishi no   kobune o   dashi-ta.
 John TOP shore GEN boat   ACC take.out-PAST
 John took a boat on the shore out.

(29)
?Patrick wa   heya no   isu   o   noke-ta.
 Patrick TOP room GEN chair ACC put.aside-PAST
 Patrick put the chair away in the room.

    I have placed a question mark against the above sentences of G-linking as they are "not necessarily" equivalent to what the A-linking of the verbs entails. Also they do not sound perfectly felicitous. This is related to the use of the Genitive and also the semantics of the verbs in this category. In the Genitive construction 'A *no* B', A can modify B as the location of B exists but it can also modify B other than as a location. For example, A can be the place where B originally exists or is supposed to exist as one of the properties of B. Thus, it is possible to say the following, with A specifying a characteristic of B and being used in the spatial transfer:

(30)
John wa heya no isu o ima   kara niwa ni noke-ta.
John TOP room GEN chair ACC living.room ABL garden ALL put.aside-PAST
John put the chair (in/for the room) away from the living room into the garden.

That is, the chair is characterised by the genitive phrase as one for the room (inside) and not for outside, and so it is possible to have a source phrase that specifies where the chair exists (temporarily). The first noun of the genitive phrase does not always have to be the ground. This is why A-linking and G-linking do not necessarily mean 'identical' things in the example sentences. G-linking may entail what A-linking means but not necessarily.

However, (28) and (29) are most likely to be interpreted as having the genitive modifier as the ground, as these verbs very rarely accept FA-linking (of the FNI).

??/*FA-linking

(31)
*John wa kobune o   dashi-ta.
John TOP boat   ACC take-out
*John take out the boat.

(32)
??Patrick wa isu   o   noke-ta.
Patrick   TOP chair ACC put.aside-PAST
??Patrick put aside the chair.

Since it requires either a goal phrase or a source phrase, when it is realised in G-linking (without any other oblique phrases), the modifying noun of the Genitive construction is plausibly interpreted as the ground. The complexity here is a good indicator that the Genitive is required by the verb and the argument structure construction.

6.4.2.4. Causal and aspectual patterns

The agent acts on the figure and causes it to move from the original location, which is construed as the ground. The aspectual pattern for subtype 2-1 varies (see the

discussion of type 2 verbs of putting). Situations can be construed as achievements or accomplishments (with the verbal scale that indicates the trajectory of motion of/on the figure or with an iterated/multiple events reading). For example, John's act of taking the boat off the shore can have the retrospective reading or the activity in progress reading with *te-iru*. In the latter case, it is construed as an accomplishment because of the compatibility of *tochuumade* 'halfway'. *Sukohiszutsu* 'little by little' modifies the motion of the boat whose imaginary trajectory line is on the surface crossing the water from on the shore to off the shore. That is, the figure is associated with a verbal scale.

(33)   John wa kobune o kishi kara dashi-te-iru.
John TOP boat ACC shore ABL take.out-TE-IRU
John has taken a boat off the shore. (retrospective)
John is taking a boat off the shore. (activity in progress)

(34)   John wa kobune o tochuumade kishi kara dashi-ta.
John TOP boat ACC halfway shore ABL take.out-PAST
John took a boat halfway off the shore.

(35)   John wa kobune o kishi kara sukoshizutsu dashi-te-iru.
John TOP boat ACC shore ABL little.by.little take.out-TE-IRU
John is taking a boat off the shore little by little.

Subtype 2-2 verbs do not get the activity in progress reading unless a situation is construed as repeated events of putting aside. That is, they represent achievements.

(36)   Patrick wa heya kara isu o noke-te-iru.
Patrick TOP room ABL chair ACC put.aside-TE-IRU
Patrick is putting chairs away from the room.
(activity in progress as iterated activity)

6.4.2.5. Semantic representations

The achievement construal of *nokeru* 'put aside' and the accomplishment construal of *dasu* 'take out' are as follows.

Figure 5. achievement construal of A-linking of nokeru *'put aside' in (23)*

room — — — — — — — — — — — exist
                                  kara
                              dislocated

chair — — — — — — — — — — **nokeru 'put aside'**

Patrick   cause move away
Δ

t
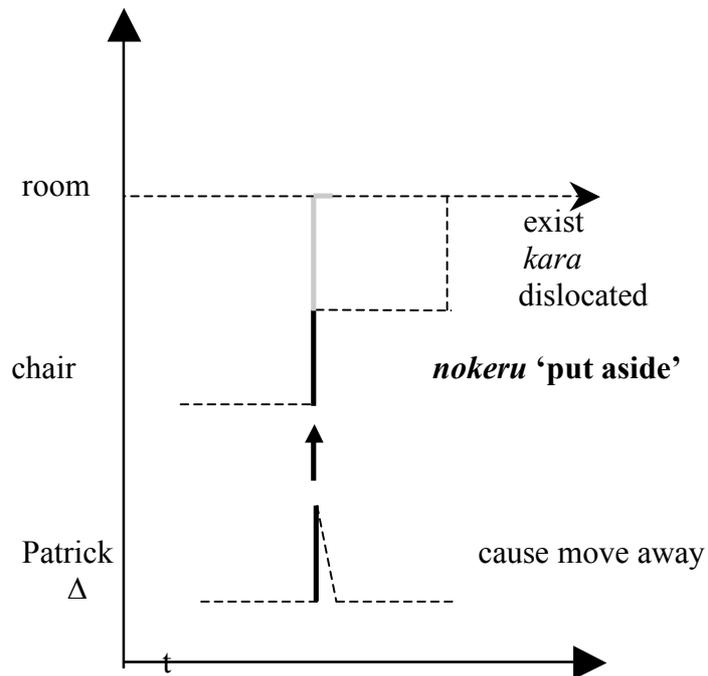
Figure 6. accomplishment construal of A-linking of dasu *'take out' in (22) and (35)*

shore — — — — — — — — — — — — — exist
                                  kara
                              move away

boat — — — — — — — — — — **dasu 'take out'**

John   cause move
Δ   away

t
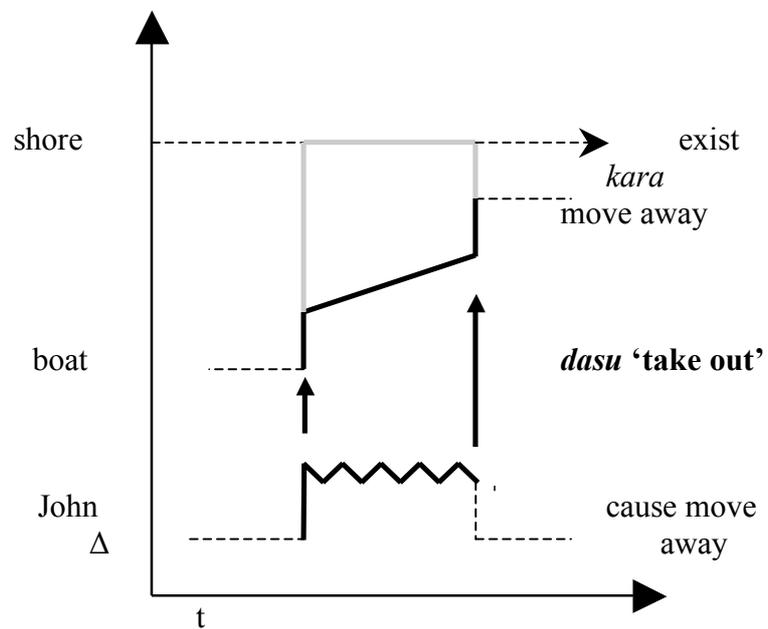
6.4.3. Type 3 *Katazukeru* 'clear' verb

6.4.3.1. Member

The following verb is the only member of this verb type:

     katazukeru 'clear'

6.4.3.2. Semantics

I have only found one member here. It refers to an activity of emptying/clearing a place by moving an entity to another place, which is normally thought to be proper for the entity (the cupboard for dishes, for example). The relation between the figure and the ground is locational.

6.4.3.3. Syntactic patterns

This category appears with both FA-type and GA-type linking. This is similar to the locative alternation of English verbs of removing. It is also compatible with the phrase *kirei ni* 'clean RST' indicating that the ground is completely cleared.

A-linking
(37)
Joe wa   teeburu kara sara o   katazuke-ta.
Joe TOP table   ABL dish ACC clear-PAST
Joe cleared the dishes from the table.

G-linking
(38)
Joe wa   teeburu no   sara o   katazuke-ta.
Joe TOP table   GEN dish ACC clear-PAST
Joe cleared the dishes on the table.

FA-linking
(39)
Joe wa   sara o   katazuke-ta.
Joe TOP dish ACC clear-PAST
Joe cleared the dishes away.

GA-linking
(40)
Joe wa   teeburu o   katazuke-ta.
Joe TOP table   ACC clear-PAST
Joe cleared the table.

Kirei ni (clean RST):

(41)
Joe wa   teeburu o   kirei ni   katazuke-ta.
Joe TOP table   ACC clean RST clear-PAST
Joe cleared the table completely (without leaving anything).

6.4.3.4. Causal and aspectual patterns

The agent acts on the figure, removes it from the ground, and makes it clean or ensures nothing is left there. The figure is omitted in an FNI-way and the event can be construed as the agent's acting directly on the ground. *Te-iru* has the activity in progress sense with the verb. The holistic theme is the figure with A-linking, as *sukoshizutsu* 'little by little' modifies the dishes, indicating the removing of the dishes little by little while the ground has GA-linking indicating that the surface of the table is cleared little by little, changing to being cleared of everything.

(42)
Joe wa   teeburu kara sara o   sukoshizutsu katazuke-te-iru.
Joe TOP table   ABL   dish ACC little.by.little clear-TE-IRU
Joe is clearing the dishes from the table little by little.

(43)
Joe wa   teeburu o   sukoshizutsu katazuke-te-iru.
Joe TOP table   ACC little.by.little clear-TE-IRU
Joe is clearing the table little by little.

In FA-type linkings, the event can have the directed activity reading without specifying the definite change of state as the following example shows.

(44)
Joe wa sara o   teeburu kara katazuke-ta ga mada ichi mai   nokot-te-iru.
Joe TOP dish ACC table   ABL clear-PAST but still   one   CLSS remain-TE-IRU
Joe cleared the dishes from the table, but there is one (dish) left there.

On the other hand, GA-type linking does not allow this, and thus ensures the change of state reading on the ground in GA-linking, as the unacceptable of example (45) shows:

(45)
*Joe wa teeburu o   katazuke-ta ga mada sara ga   nokot-te-iru.
Joe TOP table   ACC clear-PAST but still   dish NOM remian-TE-IRU
*Joe cleared the table, but there are still some dishes left there.

293

That is, FA-type linkings entail the figure being dislocated while GA-linking entails the ground becoming cleared.

6.4.3.5. Semantic representations

The following are the representations of A-linking and GA-linking of the verb. Holistic theme is assigned differently between the two representations.

Figure 7. accomplishment construal of A-linking of katazukeru *'clear' in (37)*
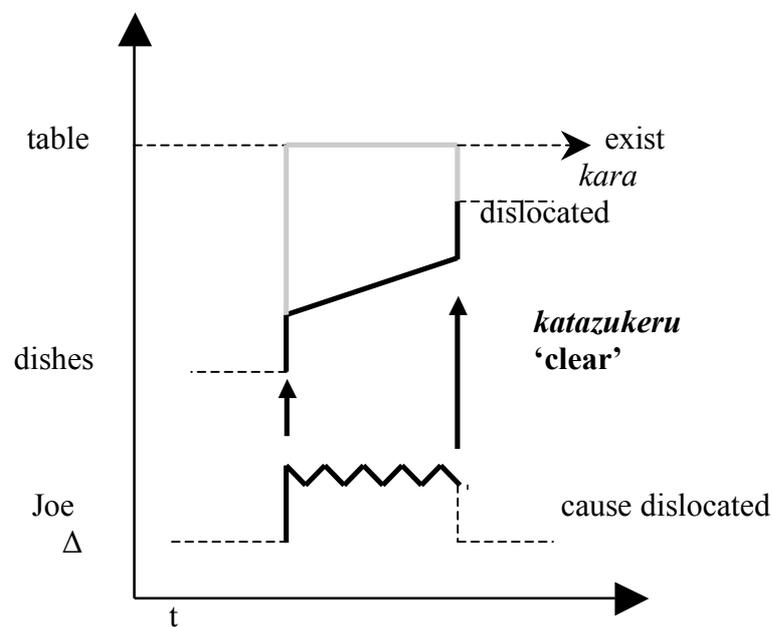
Figure 8. accomplishment construal of GA-linking of katazukeru *'clear' in (40)*
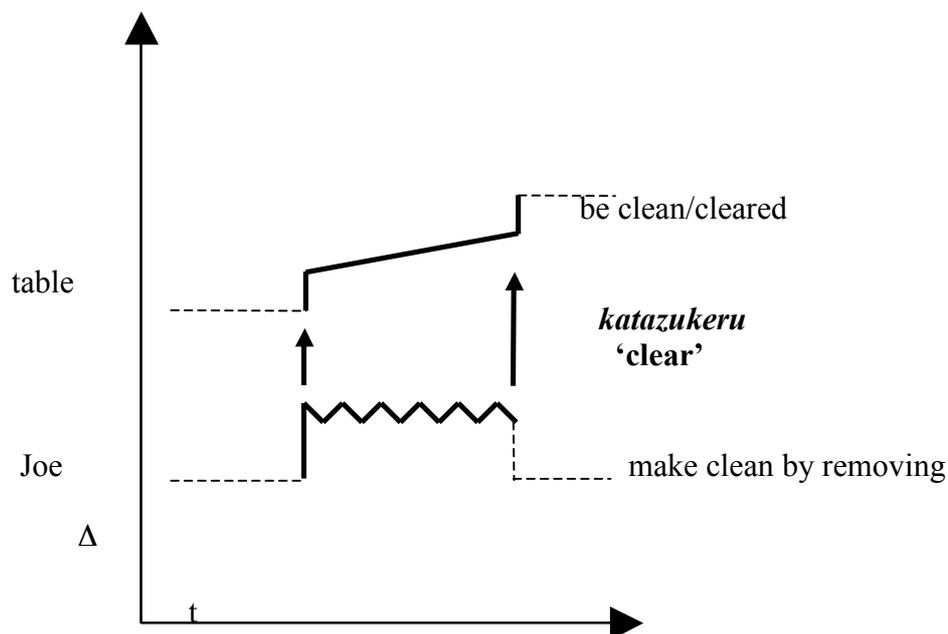
6.4.4. Type 4 *Haku* 'sweep' verbs

6.4.4.1. Members

The following are some members of this verb type:

  haku 'sweep', *huku* 'wipe', *nuguu* 'wipe'

6.4.4.2. Semantics

Type 4 verbs 'typically' refer to cleaning a surface of an entity by removing dust or rubbish from the surface. The surface is construed as the ground and the unnecessary entities (normally dust, stain etc.) as the figure. The relation between figure and ground is impurities locational. These verbs are also similar to manner verbs in Levin's classification in that they entail a certain manner in which the figure (dust or rubbish) is removed. The entailment of manner is what distinguishes verbs of this type from type 3 *katazukeru* 'clear' verb.

6.4.4.3. Syntactic patterns

Like type 3 *katazukeru* 'clear' verb, type 4 verbs may have both FA and GA-linking.

However, A-linking is not so acceptable. The following examples illustrate:

??A-linking

(46)
??Joel wa   yuka kara gomi o   hai-ta.
 Joel TOP floor ABL dust   ACC sweep-PAST
Joel swept the dust off the floor.

G-linking

(47)
Joel wa   yuka no   gomi o   hai-ta.
Joel TOP floor GEN dust   ACC sweep-PAST
Joel swept the dust on the floor.

FA-linking

(48)
Joel wa   gomi o   hai-ta.
Joel TOP dust   ACC sweep-PAST
Joel swept the dust away.

GA-linking

(49)
Joel wa   yuka o   hai-ta.
Joel TOP sweep ACC floor-PAST
Joel swept the floor.

The *kirei ni* phrase is compatible with verbs of this category.

Kirei ni (clean RST):

(50)
Joel wa   yuka o   kirei ni   hai-ta.
Joel TOP floor ACC clean RST sweep-PAST
Joel swept the floor clean.

Another property of the verbs is that they are often used as a V1 in compounds with

type 1 or type 2-1 verbs as V2. (cf. §6.4.17 -18).

6.4.4.4. Causal and aspectual patterns

Basically, these are activitiy verbs of making the ground clean by removing impurities.

They denote situations which are construed either as activity or accomplishment. They

get the activity in progress reading with *te-iru*, but do not always entail that the ground

becomes clean (see example (52)).

GA-linking

(51)
Joel wa   yuka o   hai-te-iru.
Joel TOP floor ACC sweep-TE-IRU
Joel is sweeping the floor. (activity in progress)

(52a)
Joel wa   yuka o   hai-ta   ga zenzen kirei ni   nara-nakat-ta.
Joel TOP floor ACC sweep-PAST but not.at.all clean RST become-not-PAST
Joel swept the floor, but it did not become clean at all.

(52b)
Joel wa   yuka o   hai-ta   ga mada gomi ga   nokot-te-iru.
Joel TOP floor ACC sweep-PAST but still dust NOM remain-TE-IRU
Joel swept the floor, but still there is some dust remaining.

(53)
Joel wa   yuka o   sukoshizutsu hai-ta.
Joel TOP floor ACC little.by.little sweep-PAST
Joel swept the floor little by little.
(the surface of the floor is verbal scale.)

G-linking

(54)
Joel wa   yuka no   gomi o   hai-te-iru.
Joel TOP floor GEN dust ACC sweep-TE-IRU
Joel is sweeping the dust on the floor. (activity in progress)

(55)
Joel wa   yuka no   gomi o   sukoshizutsu hai-ta.
Joel TOP floor GEN dust ACC little.by.little sweep-PAST
Joel swept the dust on the floor little by little.

The possibility of negation as in (52) suggests that the act of sweeping can be an activity of repeated contact with the surface without causing any change; one can even sweep or wipe something that is already clean. However, as the incrementality in (53) suggests, it also has the directed activity reading of making the ground clean by removing something from its surface.

In example (54) (G-linking), dust is an uncountable entity and the event is conventionally construed as one that comprises repeated events of sweeping dust and therefore activity. Concerning the delimitedness, even though the sentence does not syntactically specify how much dust was on the floor, there is a natural endpoint, that is, if every grain of dust is gone, there is nothing more to sweep off. Therefore, the event is accomplishment and the verbal scale is dust which is moving away gradually

till there is nothing left. This reading is enforced by the *kirei ni* 'clean RST' example.

(56)
Joel wa yuka no gomi o kirei ni hai-ta.
Joel TOP floor GEN dust ACC clean RST sweep-PAST
Joel swept the dust on the floor completely.

6.4.4.5. Semantic representations

There follow semantic structure representations for the undirected activity construal and the accomplishment construal with GA-linking, and the accomplishment construal with G-linking.

Figure 9. undirected activity construal of GA-linking of haku *'sweep' in (49) and (52a)*

Figure 10. accomplishment construal of GA-linking of haku *'sweep' in (49)*
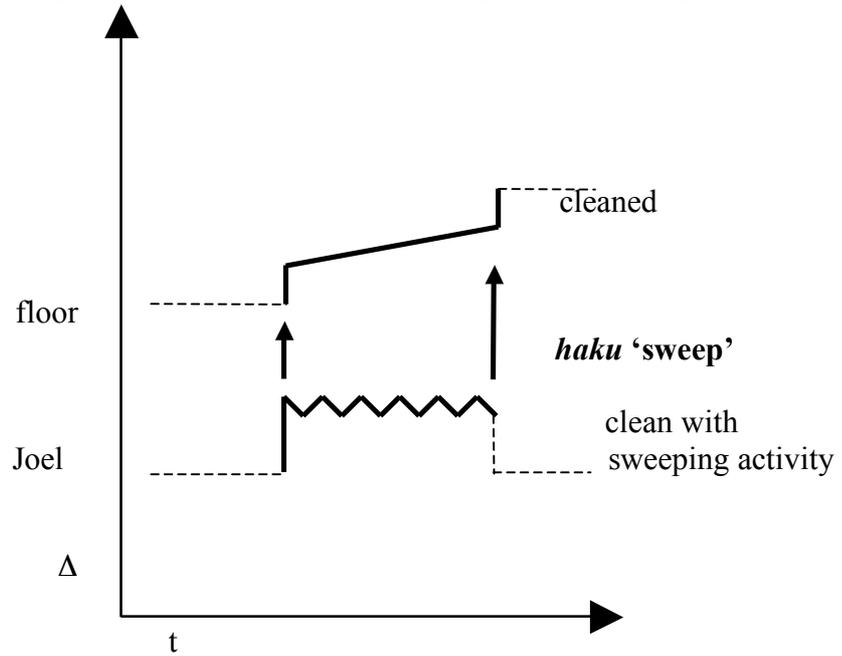
Figure 11. accomplishment construal of G-linking of haku *'sweep' in (47) and (56)*
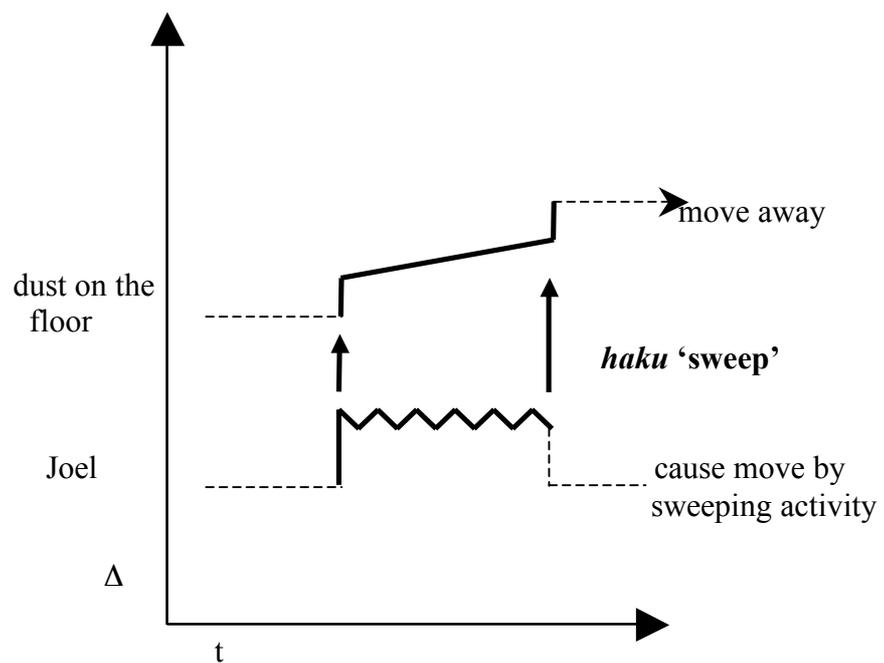
6.4.5. Type 5 *Muku* 'peel' verbs

6.4.5.1. Members

The following are some members of this verb type:

muku 'peel', *hagu* 'tear, skin, bark', *soru* 'shave'

6.4.5.2. Semantics

Verbs of this type refer to a separation of two entities, one of which is a part of the other (a whole-part relation). Or, at least, two entities are in close contact as in one entity stuck to another with glue (attachment). What is removed is normally thought to be an unfavorable, or, at least, a useless part of the whole[4]. Unlike type 1 verbs and not unlike type 4 verbs, they entail a manner or means how the act of separation happens.

6.4.5.3. Syntactic patterns

These verbs appear in both FA and GA linking types. A-linking may be only marginally acceptable, and in most cases, it sounds more natural to use G-linking rather than A-linking. FA-linking is basically not so acceptable.

??A-linking

(57)
??Haha wa jagaimo kara kawa o   mui-ta.
 mother TOP potato   ABL skin ACC peel-PAST
Mother peeled the skin from a potato.

---

[4] I include verbs of digging *horu* and *sai.kutsu-suru* in this category (see appendix G). They are not prototypical members of this category in that they normally do denote the relation of location. Also, they are totally OK with A-linking. Semantically, they can be categorised as in the type 6 (I would say that they are inbetween of the two categories.) I classify them here under this category, however, because they share an important syntactic behaviour which is the grammaticality with FA and GA type constructions. Moreover, semantically, digging is an action which forced upon the surface that is construed as the ground. The main difference from the type 6 is that the verbs of digging are totally grammatical with GA-linking.

G-linking

(58) Haha   wa   jagaimo no   kawa o   mui-ta.
      mother TOP   potato   GEN   skin ACC   peel-PAST
      Mother peeled a potato.

*FA-linking (some OK)

(59) *Haha   wa   kawa o   mui-ta.
       mother TOP   skin ACC   peel-PAST
      ??Mother peeled the skin.

(60) Chichi wa   hige   o   sot-ta.
      father TOP   beard/mustach ACC   shave-PAST
      Father shaved.

The reason why (60) is acceptable is that a beard is a part of the subject, which can also be the ground where the figure is located. *Shave* puts more constraints on the direct object which is semantically more specified than 'skin'. The beard is a person's beard. On the other hand, the skin in (59) can be any skin (of a potato, apple, chicken, etc.) Therefore, (59) is not acceptable without a proper context.

Most of these verbs allow GA-linking.

GA-linking

(61) Haha   wa   jagaimo o   mui-ta.
      mother TOP   potato   ACC   peel-PAST
      Mother peeled a potato.

These verbs are also compatible with *kirei ni* 'clean RST,' a phrase indicating that no marks or no remains are left on the ground and they are often also used as the V1 in compounds with type 1 verbs.

(62a) Haha   wa   jagaimo no   kawa o   kirei ni   mui-ta.
      mother TOP   potato   GEN   skin ACC   clean RST   peel-PAST
      Mother peeled the skin of a potato completely.

(62b) Haha   wa   jagaimo o   kirei ni   mui-ta.
      mother TOP   potato   ACC   clean RST   peel-PAST
      Mother peeled a potato completely.

6.3.5.4. Causal and aspectual patterns

Causally, these verbs denote that the agent takes or removes the figure away from the ground. Aspectually, they bear the activity in progress reading with *te-iru*. They refer to the processual activity of separating a part from a whole.

(63a)
Haha   wa   jagaimo no   kawa o   mui-te-iru.
mother TOP potato   GEN skin   ACC peel-TE-IRU
Mother is peeling the skin of the potato.

(63b)
Haha   wa   jagaimo o   mui-te-iru.
mother TOP potato   ACC peel-TE-IRU
Mother is peeling the potato.

In the events denoted by these verbs, either the figure, as in (63a), or the ground, as in (63b), serves as a verbal scale of directed activity. Conventionally the verbs have the directed activity construal and the accomplishment construal. As the following example shows, the sentences can be modified by *tochuumade* 'halfway' or *sukoshizutsu* 'little by little':

(64a)
Haha   wa   jagaimo no   kawa o   tochuumade/sukoshizutsu mui-ta.
mother TOP potato   GEN skin   ACC halfway/little.by.little   peel-PAST
Mother peeled a potato halfway/little by little.

(64b)
Haha   wa   jagaimo o   tochuumade/sukoshizutsu mui-ta.
mother TOP potato   ACC halway/little.by.little   peel-PAST
Mother peeled a potato halfway/little by little.

Because the amount of skin that covers a potato is already fixed, the event has the natural end point in both G-linking and GA-linking. *Sukoshizutsu* 'little by little' modifies the skin in G-linking and the potato in GA-linking. In the former, if the skin is all gone, then the act of peeling a skin from a potato is finished, and in the latter, if the potato becomes bare, then the act of peeling the potato is done. Thus, the aspectual status of figure or ground reflects that of the whole event. The accomplishment reading is reinforced with the use of *kirei ni* 'clean RST' as in (62).

The directed activity reading is made clear in the sentences, as examples (65) show that the accomplishment reading can be prohibited.

(65a)
Kodomo wa   jagaimo no   kawa o   mui-ta   ga
child   TOP potato   GEN skin   ACC peel-PAST but

mada sukoshi kawa ga   nokot-te-iru.
still some   skin NOM remain-TE-IRU

The child peeled the skin of a potato, but there is still some skin remaining.

(65b)
Kodomo wa   jagaimo o   mui-ta   ga
child   TOP potato   ACC peel-PAST but

mada sukoshi kawa ga   nokot-te-iru.
still some   skin NOM remain-TE-IRU

The child peeled a potato, but there is still some skin remaining.

However, the negation (as in the previous type) is not allowed, as illustrated by the following:

(66a)
*Kodomo wa jagaimo no   kawa o   mui-ta   ga zenzen muke-nakat-ta.
child   TOP potato   GEN skin   ACC peel-PAST but not.at.all peel-not-PAST
The child peeled the skin of the potato, but could not peel at all.

(66b)
*Kodomo wa   jagaimo o   mui-ta   ga zenzen   muke-nakat-ta.
child   TOP potato   ACC peel-PAST but not.at.all peel-not-PAST
The child peeled the potato, but could not peel at all.

That is, the undirected activity reading is not conventionally allowed.

6.4.5.5. Semantic representations

The accomplishment construals for the verb *muku* 'peel' for G-linking and GA-linking are represented as follows. The two representations reflect the differences of assigning the verbal scale to different participants.

Figure 12. accomplishment construal of G-linking of muku *'peel' in (58) and (62a)*
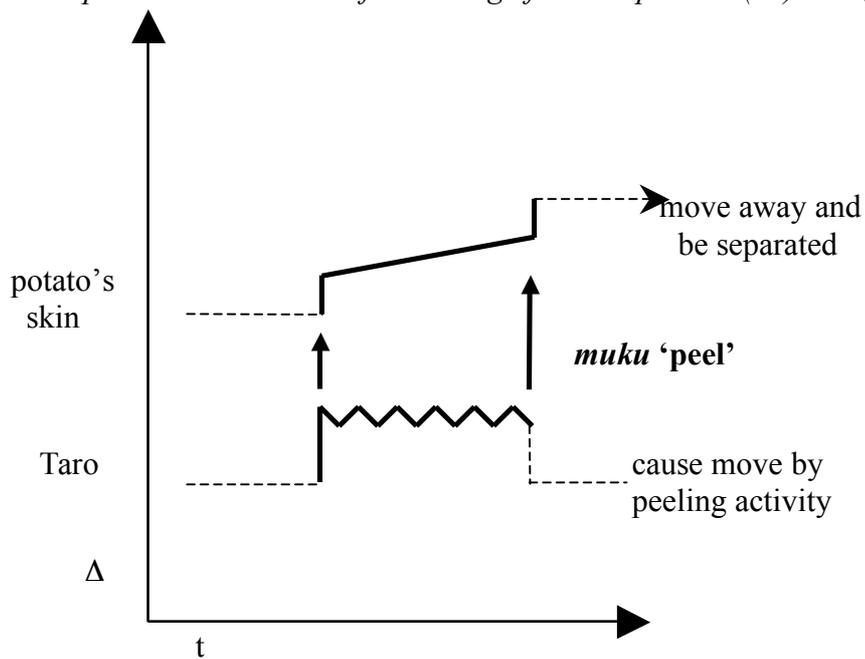
Figure 13. accomplishment construal of GA-linking of muku *'peel' in (61) and (62b)*
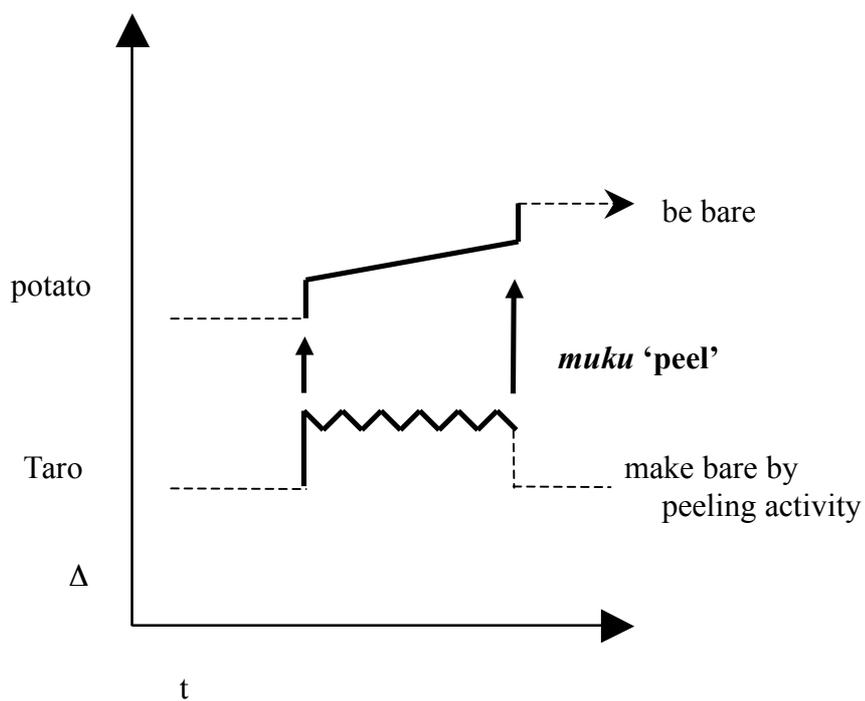
6.4.6. Type 6 *Hagasu* 'peel' verbs

6.4.6.1. Members

The following are some members of this verb type:

   hagasu 'peel', *nuku* 'pull out'

6.4.6.2. Semantics

Verbs of this type refer to the physical separation of two independent entities. The relation between the figure and the ground is attachment. Verbs of this type can accommodate a lot of examples like type 1. However, unlike type 1, they entail a certain manner/means of removal.

6.4.6.3. Syntactic patterns

These verbs manifest A-linking, G-linking, and FA-linking but not GA-linking as the following examples illustrate:

A-linking
(67)
Mary wa   kabe kara hurui kabegami o   hagashi-ta.
Mary TOP wall ABL old   wallpaper ACC peel-PAST
Mary peeled the old wallpaper off the wall.

G-linking
(68)
Mary wa   kabe no   hurui kabegami o   hagashi-ta.
Mary TOP wall GEN old   wallpaper ACC peel-PAST
Mary peeled the old wallpaper on the wall off.

FA-linking
(69)
Mary wa   kabegami o   hagashi-ta.
Mary TOP wall   ACC peel-PAST
Mary peeled the old wallpaper

*GA-linking
(70)
*Mary wa   kabe o   hagashi-ta.
 Mary TOP wall ACC peel-PAST
 *Mary peeled the wall.

They are compatible with the phrase *kirei ni.*

305

kirei ni

(71) Mary wa   kabe kara hurui kabegami o   kirei ni   hagashi-ta.
      Mary TOP wall ABL old   wallpaper ACC clean RST peel-PAST
      Mary peeled the old wallpaper off the wall completely .

Also they are often compounded as V1 with type 1 or type 2-1 verbs (§ 6.4.17-18).

6.4.6.4. Causal and aspectual patterns

With these verbs the agent acts on the figure and takes/removes it away from the ground. Aspectually, these verbs conventionally get the activity in progress sense with *te-iru*, which motivates the processual analysis of events denoted by them.

(72a) Mary wa   kabe kara hurui kabegami o   hagashi-te-iru.
      Mary TOP wall ABL old   wallpaper ACC peel-TE-IRU
      Mary is peeling the old wallpaper off the wall.

(72b) Mary wa   kabe no   huri kabegami o   hagashi-te-iru.
      Mary TOP wall GEN old wallpaper ACC peel-TE-IRU
      Mary is peeling the old wallpaper on the wall off.

The figure (old wallpaper) in (72) is associated with a verbal scale because its aspectual status reflects that of the whole event. *Sukoshizutsu* 'little by little' modifies the status of wallpaper, which is taken away little by little with both linkings, though I only show the example of A-linking below.

(73) Mary wa   kabe kara hurui kabegami o   sukoshizutsu hagashi-ta.
      Mary TOP wall ABL old   wallpaper ACC little.by.little peel-PAST
      Mary peeled the old wallpaper off the wall little by little.

   However, in different contexts, a runup achievement construal is also possible, for example where Mary was trying to peel off the poster stuck on the wall with glue, it did not come off for a while and suddenly the poster came off instantaneously. This is a runup achievement. The achievement construal is also possible in such a case as peeling a stamp off an envelope. The event is conventionally construed as an achievement though an accomplishment reading is possible.

6.4.6.5. Semantic representations

Figure 14 and 15 are the proposed aspectual representations for (67) and (68). Figure

16 is one for a runup achievement.

Figure 14. accomplishment construal of A-linking of hagasu *'peel' in (67)*
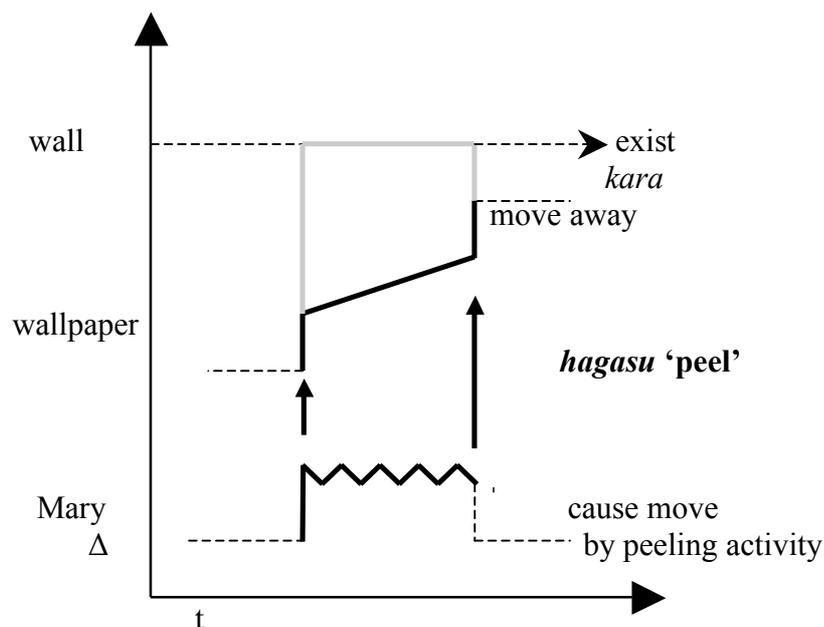
Figure 15. accomplishment construal of G-linking of hagasu *'peel' in (68)*
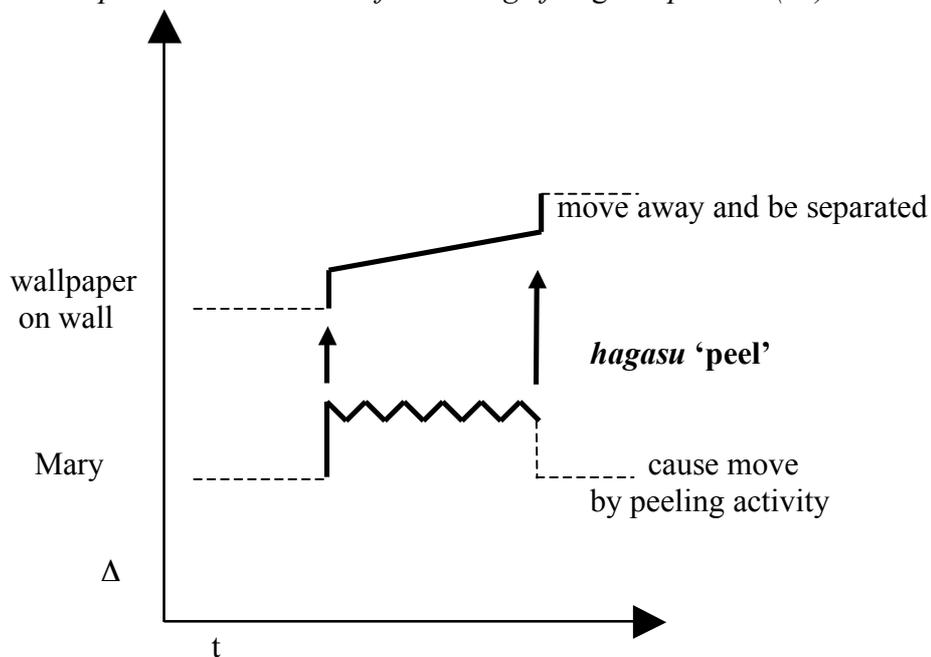
Figure 16. runup achievement construal of A-linking of hagasu *'peel' in (67)*
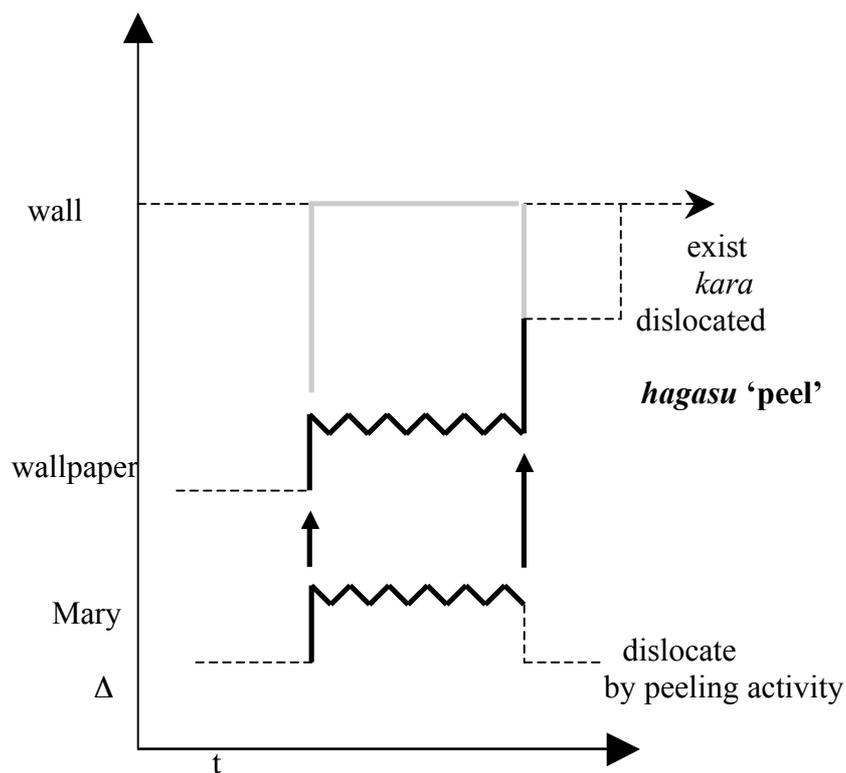
6.4.7. **Type 7 *Arau* 'wash' verbs**

6.4.7.1. Members

The following are some members of this verb type:

subtype 7-1　*arau* 'wash', *sou.ji-suru* 'clean'
subtype 7-2　*kiyomeru* 'purify, cleanse', *jou.ka-suru* 'purify'

6.4.7.2. Semantics

Subtype 7-1 verbs denote an activity of cleaning something (the ground) by removing impurities. Subtype 7-2 verbs denote an event of making the ground clean by removing impurities. The relation between the figure and the ground is the impurities locational type though the figure is not syntactically realised.

6.4.7.3. Syntactic patterns

These verbs appear with GA-linking. They do not manifest any FA-type linkings such as A-linking or G-linking. That is, the figure is not realised (FNI) though there is a consensus about the kind of things removed: dust or a stain, something that makes an entity dirty. These properties of the figure are lexically entailed in the verbs, which makes only GA-linking possible. As the event focuses on what has happened to the ground, these verbs are similar to the change of state verbs.

GA-linking:

(74)
Patrick wa zubon o arat-ta.
Patrick TOP trouser ACC wash-PAST
Patrick washed the trousers.

(75)
Joel wa heya o sou.ji-shi-ta.
Joel TOP room ACC clean-PAST
Joel cleaned the room.

(76)
Sono onna wa mi o kiyome-ta.
the woman TOP body ACC cleanse-PAST
The woman cleansed her body.

*A-linking:

(77)
*Patrick wa zubon kara yogore o arat-ta.
Patrick TOP trousers ABL stain ACC wash-PAST
Patrick washed the stain from the trousers.

*G-linking:

(78)
*Patrick wa zubon no yogore o arat-ta.
Patrick TOP trousers GEN stain ACC wash-PAST
Patrick washed the stain on the trousers.

Subtype 7-1 verbs are also compatible with the phrase *kirei ni* 'clean RST', which indicates that the ground becomes completely clean as in example (79). However, in example (80) with subtype 7-2, this sounds less acceptable as the verbs themselves entail that the ground becomes clean completely.

(79)
Patrick wa zubon o kirei ni arat-ta.
Patrick TOP trouser ACC clean RST wash-PAST
Patrick washed the trousers clean.

(80) ??Sono onna   wa   mi   o   kirei ni   kiyome-ta.
       the   woman TOP body ACC clean RST cleanse-PAST
       The woman made her body clean.

6.4.7.4. Causal and aspectual patterns

With these verbs the agent acts on an entity, which is supposed to be ground with the

intention of causing changes by removing something attached to it. Type 7-1 verbs

have the activity in progress reading with *te-iru*, as indicated below:

(81) Patrick wa   zubon   o   arat-te-iru.
       Patrick TOP trouser ACC wash-TE-IRU
       Patrick is washing the trousers.

(82) Joel wa   heya o   sou.ji-shi-te-iru.
       Joel TOP room ACC clean-TE-IRU
       Joel is cleaning the room.

They do not necessarily entail that the ground becomes clean, as the following

sentences show.

(83) Patrick wa   zubon o   arat-ta   ga zenzen kirei ni   nar-anakat-ta.
       Patrick TOP trousers ACC wash-PAST but not.at.all clean RST become-not-PAST
       Patrick washed the trousers, but they did not become clean at all.

(84) Joel wa   heya o   sou.ji-shi-ta ga zenzen kirei ni   nar-anakat-ta.
       Joel TOP room ACC clean-PAST but not.at.all clean RST become-not-PAST
       Joel cleaned the room, but it did not become clean at all.

This suggests that, not unlike type 4 verbs, they can have an undirected activity

construal without referring to the change of state of the ground. In this construal, the

agent acts on the ground, which does not undergo any directed changes (see Figure 17

below).

   The other subclass of verbs of this type, such as *kiyomeru* 'purify', behaves

differently   in   terms   of   delimitedness.   With   *te-iru*,   it   favours   the

retrospective/resultative reading referring to the clean state of the ground or at most,

the activity in progress reading in the runup achievement. It also does not allow negation.

(85)   Sono onna   wa   mi   o   kiyome-te-iru.
the   woman TOP body ACC cleanse-TE-IRU
The woman has cleansed her body.
The woman is cleansing her body. (the runup achievement)

(86)   *Sono onna   wa   mi   o   kiyome-ta   ga kirei ni   nar-anakat-ta.
the   woman TOP body ACC cleanse-PAST but clean RST become-not-PAST
The woman cleansed her body, but it did not become clean.

This behaviour suggests that *kiyomeru* (the subtype 7-2) is an achievement verb which profiles the final transition of the ground from not being clean to being clean. We can say this is the corresponding verb to *yogosu* 'dirty' in verbs of putting.

The incrementality of the event varies according to verbs and situations. *Arau* 'wash' is rarely acceptable with *sukoshizutsu* 'little by little' unless the direct object is plural and construed as a derived verbal scale. *Kiyomeru* 'purify' is the same.

(87)   ??Patrick   wa   sukoshizutsu zubon   o   arat-ta.
Patrick   TOP trouser   little.by.little ACC wash-PAST
Patrick washed the trousers little by little.
(??when the trousers is interpreted as one pair)

On the other hand, *sou.ji-suru* 'clean' and *jou.ka-suru* 'purify' can be construed as directed activities or accomplishment, as the following examples show:

(88)   Joel wa   heya o   sukoshizutsu sou.ji-shi-ta.
Joel TOP room ACC little.by.little clean-PAST
Joel cleaned the room little by little.

(89)   Karera wa   osui   o   sukoshizutsu jou.ka-shi-ta.
they   TOP dirty.water ACC little.by.little purify-PAST
They purified dirty water little by little.

It is possible to clean the room on part at a time, as we can imagine from the way we hoover a room for example. We can do it gradually and achieve more space in the room to be cleaned. If we hoover half the room and it becomes clean, we can see the cleaning event of the room as half done as the cleanliness of half the room is

perceptible. Thus, the verb has the accomplishment construal with the ground as its verbal scale. On the other hand, the act of washing is not measured incrementally because of the way we wash things. We do not wash half of the shirt at one time and wash the rest at another time. Also, we see the cleanliness of the shirt at the end of washing as a whole. It is not possible in our conventionalised situation that half the shirt becomes clean in the middle of washing and the rest of it becomes clean at the end. Therefore, *arau* 'wash' in this example gets the runup achievement interpretation. In the case of *jou.ka-suru* 'purify', it is possible to purify the ground little by little when the ground is uncountable entity like water.

6.4.7.5. Semantic representations

Below are the Figures for the undirected activity construal, the accomplishment construal, the runup achievement construal, the achievement construal, and the directed activity construal of this category:

Figure 17. undirected activity construal of GA-linking of arau *'wash' in (74)[5] and (83)*
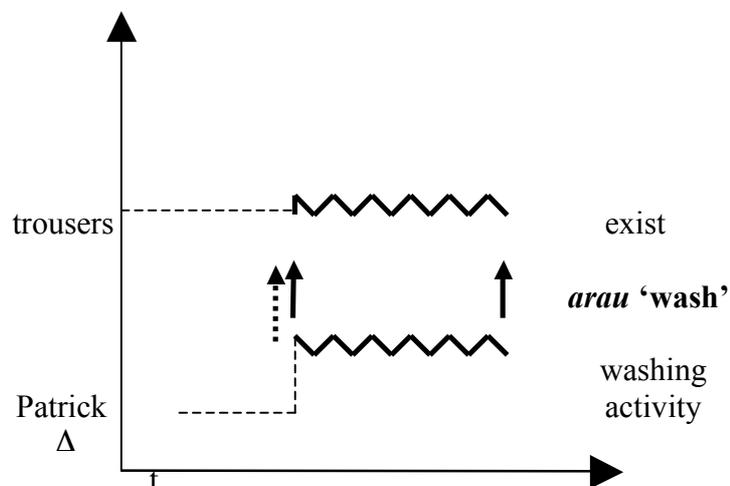
Figure 18. accomplishment construal of GA-linking of sou.ji-suru *'clean' in (75)*

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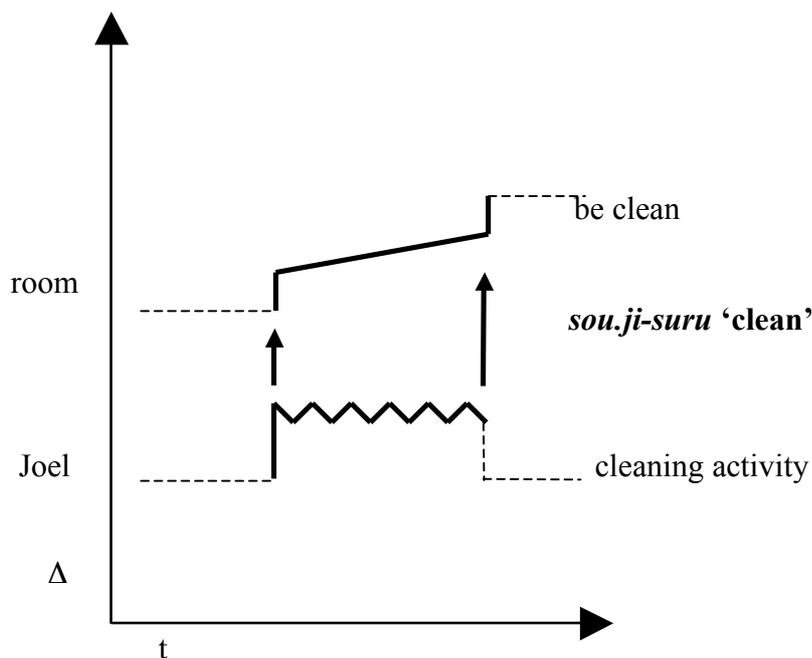
[5] Unlike in Figure 9 of type 4, the aspectual contour of the ground is represented as undirected activities. This is to show the difference in affectedness of the ground; the floor remains exactly the same even though it is swept, but the trousers have soap applied to them, are put into water, squeezed etc in the process of washing. That is, they can be interpreted to undergo certain undirected activities.

Figure 19. runup achievement construal of GA-linking of arau *'wash' in (74) and (81)*
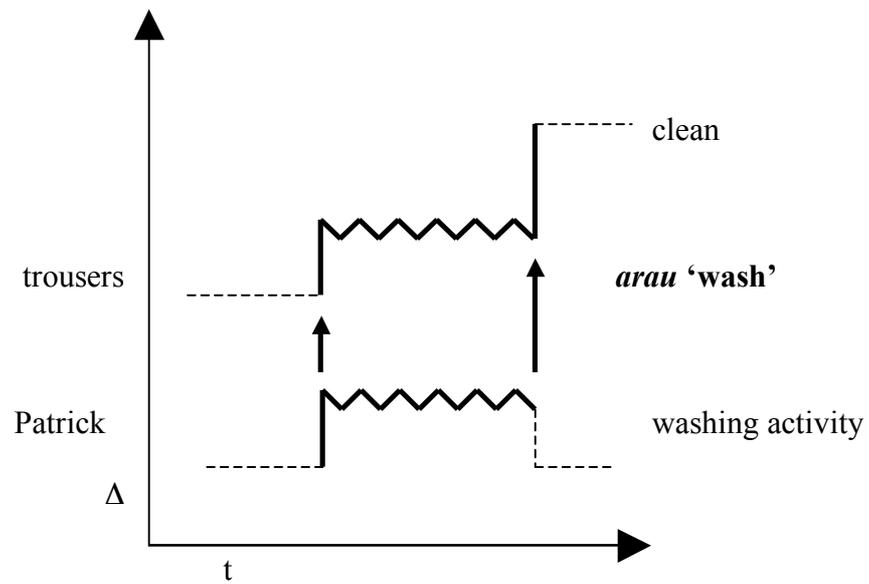
Figure 20. achievement construal of GA-linking of kiyomeru *'purify' in (76)*
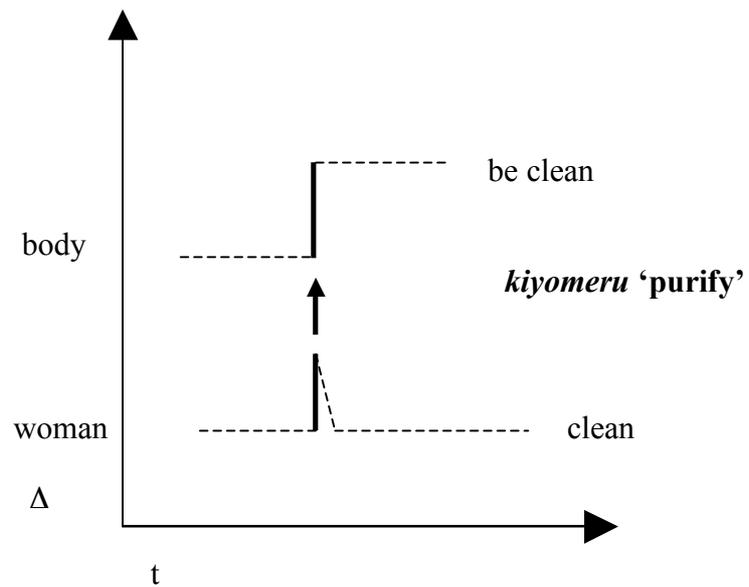
Figure 21. directed activity construal of GA-linking of jou.ka-suru *'purify' in (89)*
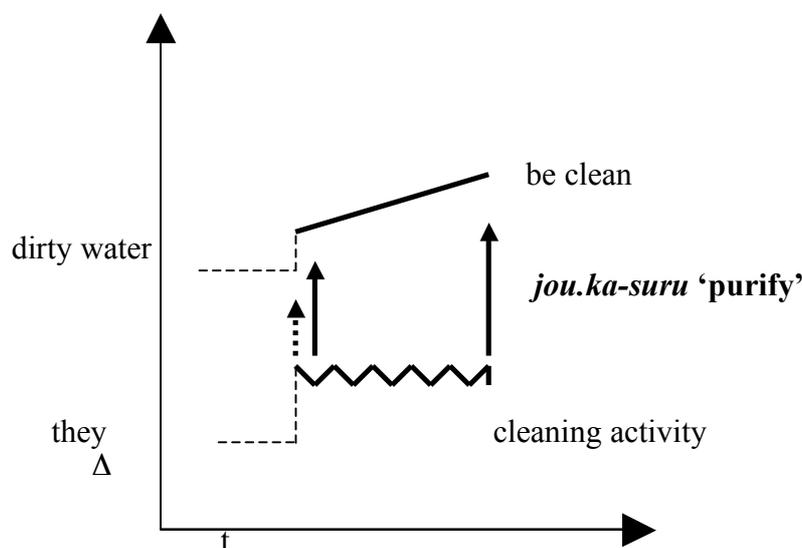
6.4.8. Type 8 *Nusumu* 'steal' verbs[6]

6.4.8.1. Members

The following are some members of this verb type:

    subtype 8-1
        ubau 'steal', *nusumu* 'steal', *tou.you-suru* 'plagiarize'
    subtype 8-2
        kai.huku-suru 'regain'

6.4.8.2. Semantics

Verbs of this type express events in which an actor deprives people or organisations (ground) of some entities (figure). The relation between the figure and the ground is possessional.

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[6] Possessional deprivation verbs are treated as 'spatial transfer' and not captured as referring to possessional transfer relations (cf. Levin (1993), Croft (2000: 104, 109, §5.1)). In English, these verbs have the same alternation as verbs of removing (the Path construction and the antecedent *of* construction).

6.4.8.3. Syntactic patterns

These verbs manifest A-linking, G-linking and FA-linking.

A-linking

(90)
Dorobou	ga	John	kara	kane	o	nusun-da.
thief	NOM	John	ABL	money	ACC	steal-PAST

The thief stole money from John.

G-linking

(91)
Dorobou	ga	John	no	kane	o	nusun-da.
thief	NOM	John	GEN	money	ACC	steal-PAST

The thief stole John's money.

FA-linking

(92)
Dorobou	ga	kane	o	nusun-da.
thief	NOM	money	ACC	steal-PAST

The thief stole the money.

G-linking and FA-lilnking are grammatical with verbs of this category. However, G-linking does not necessarily denote the same event as A-linking. A-linking favours a locational (even extended way) reading, and G-linking a possessional reading between figure and ground with verbs of stealing. In (90), the ground is a person, so it is natural to interpret it as a possessor and (90) and (91) are equivalent. In another case, where money is stolen from a bank, A-linking favours interpreting the bank as the 'location' and G-linking still favours the possessional reading. The location and the possessor can be different entities. The bank in A-linking may merely specify the place where the money is taken from but the money's possessor can be somebody else like the bank's customer. Thus, the following is possible.

(93)
Dorobou	wa	ginkou	kara	John	no	kane	o	nusun-da.
thief	TOP	bank	ABL	John	GEN	money	ACC	steal-PAST

The thief stole John's money from the bank.

These verbs do not manifest GA linking as indicated by the inacceptability of the following example.

*GA-linking

(94)   *Dorobou ga   John o   nusun-da.
         thief   NOM John ACC steal-PAST
         *The thief stole John.

Another subclass of this category, verbs of regaining (*dakkan-suru* 'recapture' or *dak.kai-suru* 'recapture', *kaishuu-suru* 'recover, withdraw'), which refer to events of retrieving, regaining, or returning, are not compatible with G-linking at all. These verbs mean that some property of someone or something which is kept in a certain location are regained by a 'claimed' original or proper possessor. In other words, what is taken away is returned to the original place. The speaker, when using these verbs conceptualises the figure as not being a proper possession or proper possessum of the ground. This is why G-linking is not allowed with these verbs. The following examples illustrate:

A-linking

(95)   Wareware wa   tsuini tekigun kara shima o   dak.kan-shi-ta.
         we   TOP finally enemy ABL island ACC recapture-do-PAST
         We finally retook the island from the enemy.

*G-linking

(96)   *Wareware wa   tsuini tekigun no   shima o   dak.kan-shi-ta.
         we   TOP finally enemy GEN island ACC recapture-do-PAST
         *We finally retook the island of the enemy.

6.4.8.4. Causal and aspectual patterns

Causally, these verbs refer to an event where the agent takes the figure away from the ground. They get the retrospective reading with *te-iru*, which suggests that they denote punctual causation.

(97)   John wa   yuujin kara kane o   nusun-de-iru.
         John TOP friend ABL money ACC steal-TE-IRU
         John has stolen money from his friends (in the past).

These verbs may have the activity in progress reading with *te-iru* in runup

achievement construals though the contexts are limited. The following examples are possible if somebody is witnessing the robber stealing a wallet from John.

(98a)
Dorobou ga   John kara saihu o   nusun-de-iru!
thief   NOM John ABL wallet ACC steal-TE-IRU
The thief is stealing the wallet from John!

(98b)
Dorobou ga   John no   saihu o   nusun-de-iru!
thief   NOM John GEN wallet ACC steal-TE-IRU
The robber is stealing John's wallet!

There is not an intermediate stage of stealing a wallet. One cannot steal the wallet halfway or gradually. Also the act of stealing is finished at the last moment the robber successfully gets the wallet. In the above sentences, the witness is watching the robber's attempt to steal and not the completion; if it has been completed, the speaker would use the past tense. Therefore, the activity in progress sense here is better understood as processual activity in a runup achievement.

6.4.8.5. Semantic representations

Here are the proposed semantic structure for the achievement reading of A-linking, G-linking, and the runup achievement construal of G-linking.

Figure 22. achievement construal of A-linking of nusumu *'steal' in (90)*
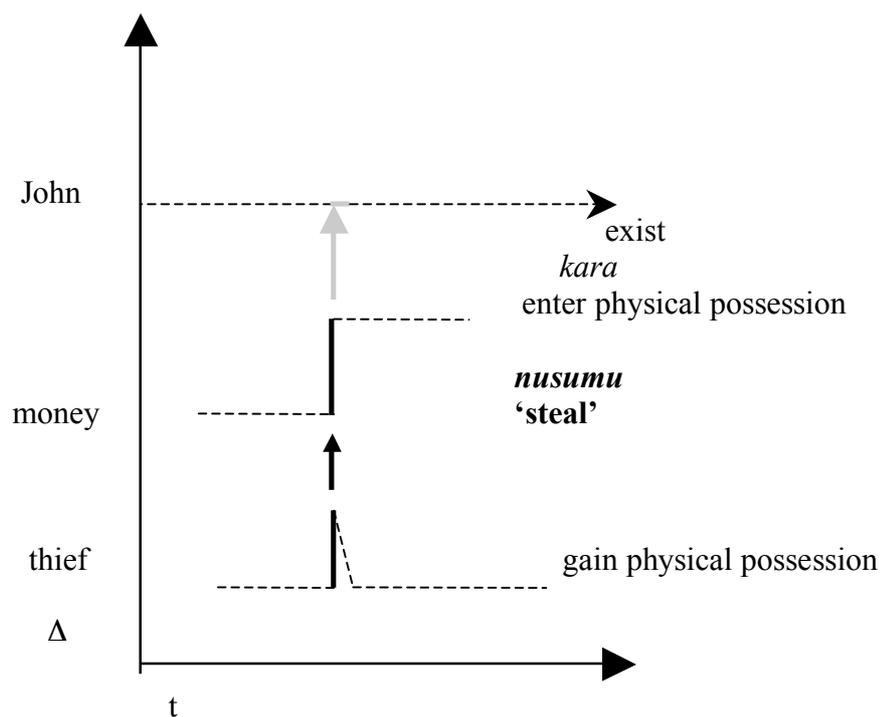
The representation above is slightly different from those of pure spatial removal. As Croft (2000: 109) argues, the thief's obtaining money clearly affects the ground (victim) in that it causes the loss of the possession. Therefore, the relation between money and John above is represented by the causal arrow (based on Croft 2000: 104, Figure 2, § 5.1). However, the interpretation of possessional deprivation as spatial transfer is still maintained by assigning the subevent of "exist" to the victim.

319

Figure 23. achievement construal of G-linking of nusumu *'steal' in (91)*
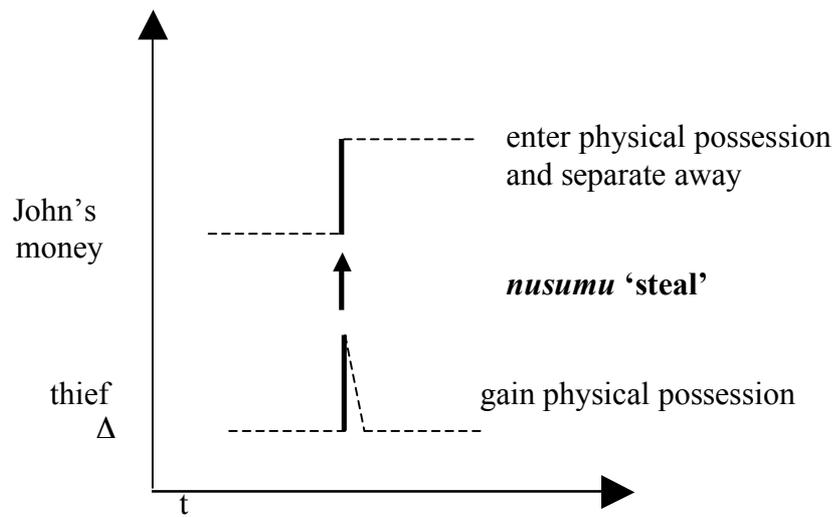
Figure 24. runup achievement construal of G-linking of nusumu *'steal' in (91)*
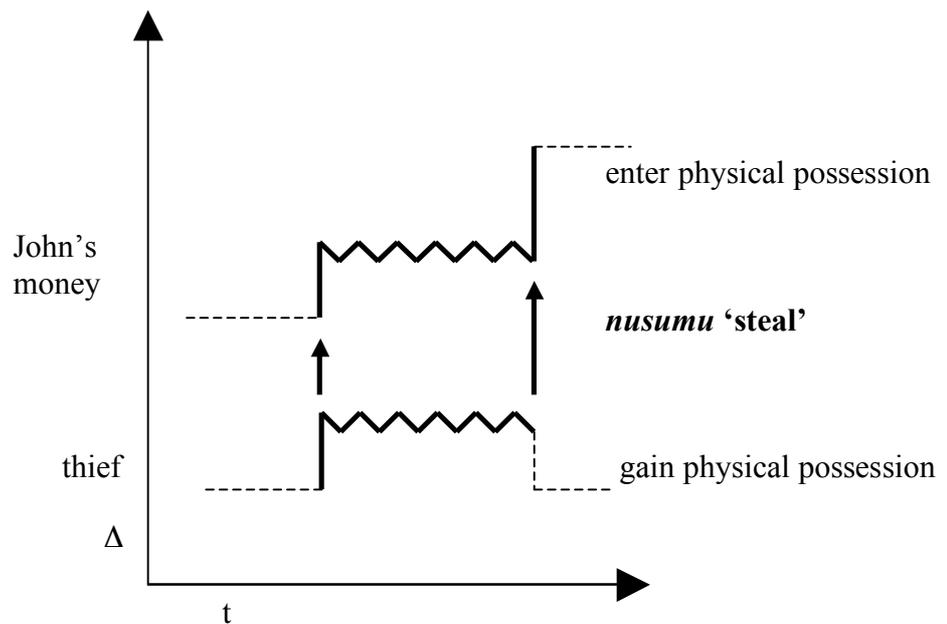
6.4.9. Type 9 *Tsui.hou-suru* 'expel' verbs

6.4.9.1. Members

The following are some members of this verb type:

> verbs of expelling
> > *tsu.ihou-suru* 'expel, banish', *oi-dasu* 'chase-put out = drive out'
> verbs of release
> > *hanasu* 'set free, release'

6.4.9.2. Semantics

Verbs of this type refer to an event of removing people or animal away from a location by driving them away or by setting them free. The relation between the figure and the ground is locational. The two subtypes differ in terms of how a person or animal is 'removed' and the willingness of the figure to be removed. However, their main syntactic behaviour is identical. Verbs of expelling include many compound verbs whose V1 is *ou* 'chase'. However, the V2 varies and they are frozen expressions where the meaning of the V2 and even that of the V1 do not contribute to the meaning of the compound. So, I categorise them as idiomatic compounds here rather than means compounds.

6.4.9.3. Syntactic patterns

These verbs manifest A-linking and G-linking. However, as discussed, G-linking does not always indicate the same situation as A-linking because of the diverse use of Genitive linking. The following examples illustrate the use of A-linking and G-linking.

A-linking

(99)
Karera wa ou o huransu kara tsui.hou-shi-ta.
they TOP king ACC France ABL expel-do-PAST
They expelled the king from France.

(100) Jacqui wa   kago kara tori o   hanashi-ta.
Jacqui TOP cage ABL bird ACC release-PAST
Jacqui released the bird from the cage.

G-linking

(101) Karera wa   huransu no   ou   o   tsui.hou-shi-ta.
they   TOP France GEN king ACC expel-do-PAST
They expelled the king of France.

(102) Jacqui wa   kago no   tori o   hanashi-ta.
Jacqui TOP cage GEN bird ACC release-PAST
Jacqui released the bird in the cage.

In example (101), 'France' can be interpreted favourably as the nationality of the king rather than the place where he temporarily stays. In that case, the construal given by G-linking is not quite equivalent to that given by A-linking. It is possible to use another phrase indicating a place from which the French king is expelled, as in the following:

(103) Karera wa   sono kuni   kara huransu no   ou o   tsui.hou-shi-ta.
they   TOP that country ABL France GEN king ACC expel-do-PAST
They expelled the king of France from that country.

I would say that the difference in acceptability of G-linking here actually has something to do with the relations between the figure and the ground, rather than with verbs themselves. As we can think of more than one relation between 'France' and 'king' (nationality of the king as well as location of the king), the G-linking becomes ambiguous for the above examples.

Verbs of this type also allow FA-linking.

FA-linking

(104) Karera wa   ou o   tsui.hou-shi-ta.
they   TOP king ACC expel-do-PAST
They expelled the king.

(105) Jacqui wa   tori o   hanashi-ta.
Jacqui TOP bird ACC release-PAST
Jacqui released the bird.

Instead of the source phrase, the goal phrase can appear, indicating where a person/animal ends up after being driven away or released from the original place. The following examples illustrate:

path pattern (Goal phrase)

(106)
Karera wa   ou   o   {huransu kara} osutoria ni   tsui.hou-shi-ta.
they   TOP king ACC {France   ABL} Austria   ALL expel-do-PAST
They expelled the king {from France} to Austria.

(107)
Jacqui wa   {kago kara} oozora ni   tori o   hanashi-ta.
Jacqui TOP   cage ABL   sky   ALL bird ACC release-PAST
Jacqui released the bird to the air {from the cage}.

This type of verbs does not, however, allow GA-linking.

*GA-linking

(108)
*Karera wa   huransu o   tsui.hou-shi-ta.
 they   TOP France ACC expel-do-PAST
 *They expelled France.

(109)
*Jacqui wa   kago o   hanashi-ta.
 Jacqui TOP   cage ACC release-PAST
 *Jacqui released the cage.

6.4.9.4. Causal and aspectual patterns

With these verbs, the agent acts on the figure (person or animals) and makes it leave the ground (location). They have basically an achievement construal as they conventionally get the retrospective reading with *te-iru*, and there are no intermediate stages of performing the action, unless the direct object is construed as a derived verbal scale.

(110)
Karera wa   ou   o   huransu kara tsui.hou-shi-te-iru.
they   TOP king ACC France ABL expel-do-TE-IRU
They have expelled the king from France. (existential use)

(111)
*Karera wa   ou   o   huransu kara sukoshizutsu tsui.hou-shi-ta.
 they   TOP king ACC France ABL little.by.little expel-do-PAST
 *They expelled the king from France little by little.

(112)
| | | | | | | |
Jacqui wa   kago   kara   tori   o   hanashi-te-iru.
Jacqui TOP   cage   ABL   bird   ACC   release-TE-IRU
Jacqui has released the bird from the cage. (retrospective)

6.4.9.5. Semantic representations

The semantic representation for the A-linking of type 9 verbs is shown in the following Figure.

Figure 25. achievement construal of A-linking of tsui.hou-suru *'expel' in (99)*
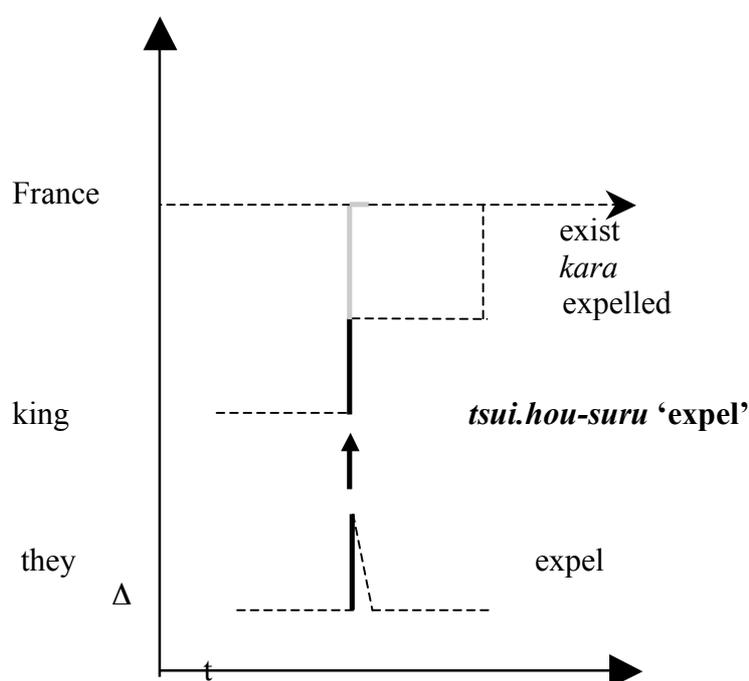
6.4.10. Type 10 *Ha.mon-suru* 'excommunicate' verbs

6.4.10.1. Members

The following are some members of this verb type:

    verbs of abstract "expel"
        ha.mon-suru 'excommunicate', *jo.mei-suru* 'oust, expel'[7]
        shirizokeru 'remove, oust'

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[7] *Jo.mei-suru* was originally a figure-incorporation type as *jo* is 'remove' and *mei* is 'name'; removing a name. However, it is now used as a frozen expression meaning 'oust' or 'remove'.

6.4.10.2. Semantics

Type 10 verbs refer to an event of expelling someone from a social organisation, a group, a sect, a position in a company or society. The relation between the figure and the ground is generally that of the extended locational type but can be identificational for a small number of verbs (e.g. *shirizokeru* 'oust'). The ground is an organisation or group for the former type of relation while it is the name of a position for the latter.

6.4.10.3. Syntactic patterns

These verbs manifest A-linking. G-linking, as with the previous types, can be ambiguous and marginal. These verbs are similar to the previous type having an extended reading of the spatial removal of somebody from an abstract location. The following examples illustrate.

A-linking

(113) Karera wa   Steve o   Katorikku kyoukai kara ha.mon-shi-ta.
      they   TOP Steve ACC Catholic   church ABL excommunicate-do-PAST
      They excommunicated Steve from the Catholic Church.

(114) Kaisha   wa   shitenchou   kara John o   shirizoke-ta.
      company TOP branch.manager ABL John ACC oust-PAST
      ?The company ousted John from branch manager.

??G-linking

(115) ??Karera wa   Katorikku kyoukai no   Steve o   ha.mon-shi-ta.
       they   TOP Catholic   church GEN Steve ACC excommunicate-do-PAST
       They excommunicated Steve of the Catholic Church.

(116) ??Kaisha   wa   shitenchou   no   John o   shirizoke-ta.
       company TOP branch.manager GEN John ACC oust-PAST
       ?The company ousted John of the branch manager.

However, a difference is that these verbs do no occur with a goal phrase, as the following examples show.

*Goal-phrase

(117) *Karera wa Steve o   Purotesutanto kyoukai ni   ha.mon-shi-ta.
      they   TOP Steve ACC Protestant   church   ALL excommunicate-do-PAST
      They excommunicated Steve to the Catholic Church.

(118) *Kaisha   wa   hirashain ni   John o   shirizoke-ta.
      company TOP employee ALL John ACC oust-PAST
      *The company ousted John to an employee.

FA-linking and GA-linking are also not possible with this type of verbs.

*FA-linking

(119) *Karera wa   Steve o   ha.mon-shi-ta.
      they   TOP Steve ACC excommunicate-do-PAST
      They excommunicated Steve.

(120) *Kaisha   wa   John o   shirizoke-ta.
      company TOP John ACC oust-PAST
      The company ousted John.

*GA-linking

(121) *Karera wa   Katorikku kyoukai o   ha.mon-shi-ta.
      they   TOP Catholic   church   ACC excommunicate-do-PAST
      *They excommunicated the Catholic Church.

(122) *Kaisha   wa   shitenchou   o   shirizoke-ta.
      company TOP branch.manager ACC oust-PAST
      *The company ousted the branch manager.

6.4.10.4. Causal and aspectual patterns

Verbs of this type bear the retrospective meaning in the *te-iru* form, which suggests

that events denoted by them are punctual. The folllowing examples illustrate:

(123) Karera wa Steve o   Katorikku kyoukai kara ha.mon-shi-te-iru.
      they   TOP Steve ACC Catholic   church   ABL excommunicate-do-TE-IRU
      They have excommunicated Steve from the Catholic Church. (existential)

(124) Kaisha   wa   shitenchou   kara John o   shirizoke-te-iru.
      company TOP branch.manager ABL John ACC oust-TE-IRU
      The company has ousted John from being branch manager.

6.4.10.5. Semantic representations

The semantic structure for the achievement reading of the verb is as follows.

Figure 26. achievement construal of A-linking of ha.mon-suru *'excommunicate' in (113)*
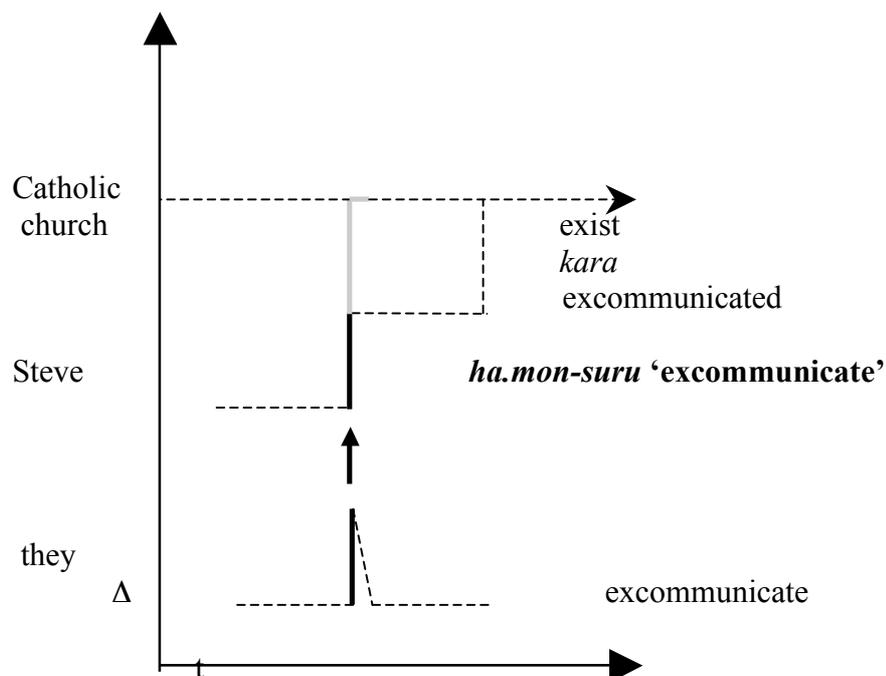
6.4.11. Type 11 *Kai.hou-suru* 'liberate' verbs

6.4.11.1. Members

   kai.hou-suru 'release, liberate'[8], *hou.men-suru* ' release, acquit'

6.4.11.2. Semantics

Type 11 verbs refer to the removal of an abstract notion from a person. This includes an event of setting somebody free from an abstract notion of suppression, responsibility, burden, or sin etc. The relation between the figure and the ground is very abstract.

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[8] The verb is also used as 'spatial' release as type 9-2 as well.

6.4.11.3. Syntactic patterns

These verbs take A-linking.

A-linking

(125)
Seihu   wa shuukyouteki yokuatsu kara hitobito o   kai.hou-shi-ta.
government TOP religious   oppression ABL people   ACC liberate-do-PAST
The government liberated people from the religious oppression.

However, neither do they take G-linking, FA-linking, GA-linking, nor a goal phrase.

*G-linking

(126)
*Seihu   wa shuukyouteki yokuatsu no   hitobito o   kai.hou-shi-ta.
government TOP religious   oppression GEN people   ACC liberate-do-PAST
The government liberated people of/in the religious oppression.

*FA-linking[9]

(127)
Seihu   wa   hitobito o   kai.hou-shi-ta.
government TOP people   ACC liberate-do-PAST
The government liberated people.

*GA-linking

(128)
*Seihu   wa   shuukyouteki yokuatsu o   kai.hou-shi-ta.
government TOP religious   oppression ACC liberate-do-PAST
*The government liberated the religious oppression.

*goal phrase

(129)
*Seihu   wa   jiyuu   ni   hitobito o   kai.hou-shi-ta.
government TOP freedom ALL people   ACC liberate-do-PAST
The government liberated people to freedom.

Genitive linking is not grammatical in this category as the relation between the figure

and the ground is very abstract and the genitive marker is not used to cover the

abstract notion that refers to something that is mentally preoccupied or suppressed by

an abstract thing.

6.4.11.4. Causal and aspectual patterns

As one of the entities which are denoted by the figure and the ground becomes more

abstract, and so do the events denoted by verbs of this category, we need to pay

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[9] The sentence is acceptable if it refers to spatial release of people such as from prison.

attention to the figure and the ground construals. So far, the verbs I have discussed denote pure spatial relations or quasi-spatial relations and it is self-evident which entity can be construed as the figure and which as the ground from their size and mobility. Being in an abstract relation, however, each of the two entities in this category can be construed either as the figure or the ground.

The difference in FG-construal is what differentiates verbs of this type and those of the next type. Semantically, they are similar; they have an agent, a freed entity (in most cases human), and an abstract notion which is to be removed. For this type, I would argue that 'the abstract notion' is the ground and 'the person' is the figure. That is, the event denoted by the verb is merely thought of as a metaphorical extension of spatial removal, and the semantic relation between the two bears 'extended locational', with the abstract notion being construed as the location where the person is confined. Motivation for this comes from the passive form. Comparing the passive form of (130) and those of purely (quasi-)spatial events of removal, they all have a [Figure TOP Ground ABL Verb-PASS] frame.

Passive (Type 11)

(130)
Hitobito wa   shuukyouteki yokuatsu   kara kai.hou-s-are-ta.
people   TOP religious   oppression ABL liberate-do-PASS-PAST
People were liberated from the religious oppression.

Passive (Type 1)

(131)
Zassou wa   shibahu kara tori-nozok-are-ta.
weeds   TOP lawn   ABL remove-remove-PASS-PAST
Weeds were removed from the lawn.

Passive (Type 2)

(132)
Kobune wa   kishi kara das-are-ta.
boat   TOP shore ABL take.out-PASS-PAST
The boat was taken out off the shore.

Passive (Type 8)

(133) Taikin   ga   ginkou kara   nusum-are-ta.
      huge.sum.of.money NOM bank   ABL   steal-PASS-PAST
      A huge sum of money was stolen from the bank.

Passive (Type 9)

(134) Ou   wa   huransu kara   tsui.hou-s-are-ta.
      king TOP France   ABL   expel-do-PASS-PAST
      The king was expelled from France.

In all the examples from other types of verbs, the figure which is the direct object in

the active sentences[10] becomes the subject in the passive, and the ground is marked as

oblique in both types of sentences. The ground cannot be marked as the direct object

in the passive: *[Figure TOP Ground ACC Verb-PASS]. Here is one example,

(135) *Zassou wa   shibahu o   tori-nozok-are-ta.
       weeds   TOP lawn   ACC   remove-remove-PASS-PAST
       Weeds were removed from the lawn.

The same is true with type 11 verbs.

(136) *Hitobito wa   shuukyouteki yokuatsu   o   kai.hou-s-are-ta.
       people   TOP religious   oppression ACC   liberate-do-PASS-PAST
       People were liberated from the religious oppression.

Thus, syntactically, there is good reason to think that the abstract notion is the ground

and the person is the figure in verbs of this category. The abstract notion to be

removed is construed as a metaphorical location where people's minds are confined.

Moreover, in this analysis, the ungrammaticality with G-linking can be explained

more clearly. It is not because the relation is abstract but because it is an extended

(abstract) locational relation. As the figure and the ground are in the extended

locational relation, G-linking is not so acceptable (cf. see type 10).

Aspectually, the achievement construal is most conventional, as the verbs get the

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[10] For active sentences, refer to the examples in the discussion of each verb type.

retrospective reading with *te-iru* as a default reading. That is, the event is an achievement.

(137) Seihu wa shuukyouteki yokuatsu kara hitobito o kai.hou-shi-te-iru.
government TOP religious oppression ABL people ACC liberate-do-TE-IRU
The government has liberated people from the religious oppression.

6.4.11.5. Semantic representations

The achievement construal of type 11 verbs is represented as follows:

Figure 27. achievement construal of A-linking of kai.hou-suru *'release' in (125)*
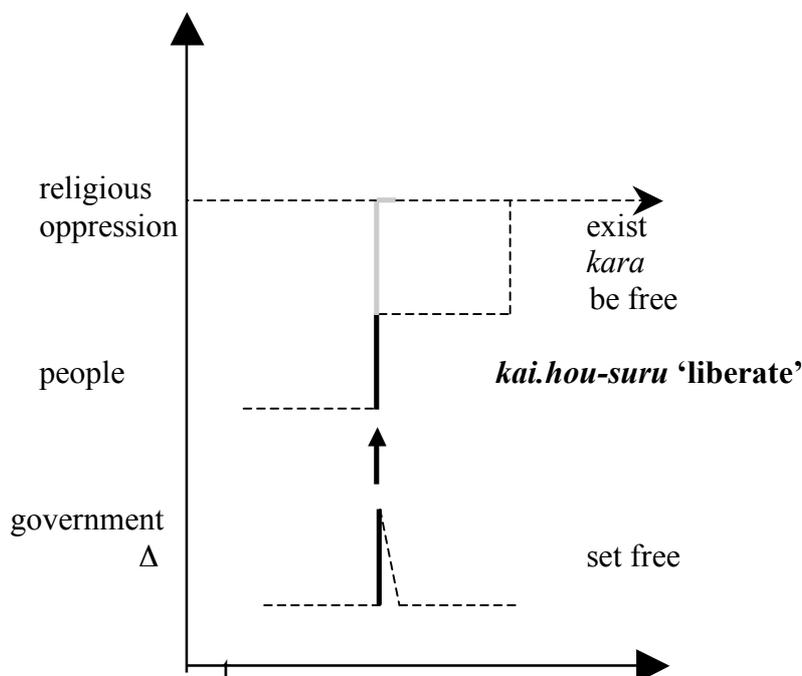
6.4.12. Type 12 *Toku* 'relieve' verbs

6.4.12.1. Members

The following are some members of this verb type:

toku 'relieve', *men.jo-suru* 'exempt', *menzuru* 'exempt'

6.4.12.2. Semantics

Like the previous type, verbs of this category refer to removing an abstract notion

such as a duty, responsibility, guilt, or oppression from a person. The relation between

the figure and the ground is abstract.

6.4.12.3. Syntactic patterns

As with *wrap* type of verbs of putting, the syntactic configuration becomes

complicated as this is related to the FG-construal itself. They manifest linking which

is similar to A-linking, with a freed person encoded as direct object and with an

abstract entity as oblique. I shall explain this linking in the following sub-section.

Reversed A-linking ((similar to) A-linking) [person = ACC, abstract notion = OBL]

(138)
Kaisha   wa   yatto juu.seki   kara kare o   toi-ta.
company TOP finally heavey.responsibility **SRC** he   ACC relieve-PAST
The company finally relieved him of heavy responsibility.

G-linking
*[abstract notion GEN person]

(139a)
*Kaisha   wa   yatto juuseki   no   kare o   toi-ta.
company TOP finally heavey.responsibility GEN he ACC relieve-PAST

The company finally relieved him of heavy responsibility.

[person GEN abstract notion]

(139b)
Kaisha   wa   yatto kare no   juuseki   o   toi-ta.
company TOP finally he   GEN heavy.responsibility ACC relieve-PAST
The company finally relieved his heavy responsibility.

*FA-linking

(140)
*Kaisha   wa   yatto juuseki   o   toi-ta.
company TOP finally heavy.responsibility ACC relieve-PAST
*The company finally relieved the heavy responsibility.

*GA-linking

(141)
*Kaisha   wa   yatto kare o   toi-ta.
company TOP finally he   ACC relieve-PAST
*The company finally relieved him.

The complexity resides in the naming of the term. These syntactic linkings are named

according to how the figure and the ground are linked to the syntactic expression, but they do not refer to which entity is construed as the figure or the ground. In most cases, the FG-construal is self-evident and does not cause problems. However, in these abstract events of removal, we need to take an FG-construal into account.

6.4.12.4. Causal and aspectual patterns

It is clear that the agent comes first in the causal representation. However, the causal order of the person and the abstract notion to be removed is not so straightforward. Either the person comes first or the abstract notion comes first.

Let us think of the first case. From the compatibility with 'A-linking' and with analogy to other spatial removal types that allow A-linking, we can assume that *toku* 'relieve' has the semantic structure like that of the previous type (Figure 27), with the freed person as the figure and the abstract notion as the ground. The whole event is seen as a metaphorical extension of spatial removal. The representation of this version is as in Figure 28a in the next sub-section.

However, there are two things which cannot be explained by this first stipulation of the causal order. First of all, *toku* 'relieve' does not behave like the previous type or other types of spatial removal in the passive form.

(142)   *Kare wa   juuseki   **kara** tok-are-ta.
        he   TOP   heavy.responsibility   ABL   relieve-PASS-PAST
        He was relieved from heavy responsibility.

(143)   Kare   wa   juuseki   **o**   tok-are-ta.
        he   TOP   heavy.responsibility   ACC   relieve-PASS-PAST
        He was relieved heavy responsibility.

The person who is temporarily supposed to be the figure is realised as the subject. The abstract notion which is supposed to be the ground does not appear in the ablative

phrase, but in the accusative phrase in the passive form, which is different from the other verb types.

Secondly, the behaviour concerning G-linking is also different between this type and other types of spatial removal. In the previous type, the "ground GEN figure" phrase is not allowed and I explained that it is because of the abstract/extended location between the figure and the ground. The ungrammaticality of (139a) can be explained in the same way. However, the grammaticality of (139b) cannot be explained. The equivalent expression with the previous type of verb is not acceptable.

(144) *Seihu   wa hitobito no   shuukyouteki yokuatsu o   kai.hou-shi-ta.
       government TOP people   GEN religious   oppression ACC release-do-PAST
       The government released people's religious oppression.

In the above, 'figure GEN ground' is not grammatical. In (139b), if we assume the abstract notion as the ground and the freed person as the figure, 'figure GEN ground' pattern should be somehow acceptable here.

The above two syntactic differences between this type and the other (quasi-)spatial removal types suggest that the semantic structure of this type should not be proposed in the same way as the previous one, i.e. 'extended locational reading'. The second possibility is that the abstract notion to be removed comes first in the causal structure. That is, causally, the agent acts on the abstract notion and removes it from the person; with the abstract notion (heavy responsibilities) as the figure and the freed person (he) as the ground.

This alternative causal order is similar to that with *nusumu* 'steal' verbs, which manifest possessional relation between the possessor (ground) and the possessum (the figure). Let us compare these two types. Actually, 'steal' type verbs and this type behave similarly in the passive form.

nusumu type:

A-linking [ground-ABL figure-ACC]

(145)
Dorobou wa roizu ginkou **kara** okane o nusun-da.
thief TOP Lloyds bank ABL money ACC steal-PAST
The thief stole money from Lloyds Bank.

Passive

*[Ground TOP Figure ABL Verb-PASS]

(146)
*Roizu ginkou wa okane **kara** nusum-are-ta.
Lloyds bank TOP money ABL steal-PASS-PAST
*Lloyds Bank was stolen from money.

Passive

[Ground TOP Figure ACC Verb-PASS]

(147)
Roize ginkou wa okane **o** nusum-are-ta.
Lloyds bank TOP money ACC steal-PASS-PAST
Lloyds Bank had its money stolen.

Comparing (146) and (147) with (142) and (143), we can see similarities. We can conclude that *Lloyds bank* in (146) and (147) and *he* in (142) and (143) are both the ground and the possessor. When they are realised as the subject in the passive sentence, the figure is marked as accusative and not oblique[11]. This alternative construal explains the first difference between the behaviour of type 12 verbs and other spatial removal type verbs in the passive form.

Moreover, the second difference between the behaviour of these two groups of verbs (type 12 and other spatial removal types) is explained by the alternative causal order. By putting the abstract notion first in the causal order, the event is construed as the freed person being the possessor of that abstract notion, which will be taken away by the agent. The genitive case can indicate the possessor-possessum relation in 'A GEN B', so the genitive phrase 'his heavy responsibilities' in (139b) is validated. That is, the genitive linking is compatible with an extended possessional relation (but not

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[11] Note that in *nusumu* 'steal' type, which is treated as an extended meaning of spatial removal, when figure is the subject of the passive sentence, ground is marked as oblique as in cases of the other spatial types and type 11 (see the examples of passives in the discussion of type 11).

an extended locational relation).

Thus, concerning the order of participants, there is good motivation for treating the causal order of type 12 like the poseessional relation between the person and the abstract notion, through comparison with the *nusumu* 'steal' type of verbs, as they behave syntactically in a similar way in relation to the passive. One notable difference between the two types, however, is the realisation of A-linking; in the *nusumu* 'steal' type, the possessor is realised as oblique and the possessum as accusative, while in *toku* 'relieve', the possessor (the freed person) is realised as accusative and the possessum (the abstract notion) is realised as oblique. That is, the A-linking in (138) is actually **Reversed A-linking** since the figure and the ground are realised syntactically in the opposite way to how they would be with normal A-linking.

The semantic representation of type 12 should be altered accordingly. As the ground is realised as the direct object and also because of Figure-first coercion (cf. Croft 1991: 198-206), the verb should profile all of the three participants. The ground, which is marked as the direct object, is no more a spatial reference point, but is a participant that undergoes changes. The figure is located before the direct object, which means the postposition *kara* is not a subsequent oblique but an antecedent oblique. In §4.4.1.2.4, I list the use of *kara*. It can be an antecedent oblique marker as source. It may be plausible to say that *kara* in reversed A-linking is the source so that the figure here (heavy responsibilities) can also be thought to be an abstract source from which the freed person is freed as well as the possessum. The reversed A-linking corresponds to the English antecedent oblique *of* construction. In Japanese, the distinction between normal A-linking and the reversed one is not immediately apparent as they use the same marker *kara*, unlike English, which uses the different prepositions *from* and *of*.

The alternative and more explanatory semantic structure of the type is presented as Figure 28b in the next subsection. It represents the achievement construal. The verb has the retrospective reading with *te-iru*.

(148)
Kaisha wa juuseki kara kare o toi-te-iru.
company TOP heavy.responsibility ABL he ACC relieve-TE-IRU
The company has relieved him of heavy responsibility. (existential)

6.4.12.5. Semantic representations

Figure 28a*. achievement construal of A-linking of toku *'relieve' in (138): spatial transfer reading*
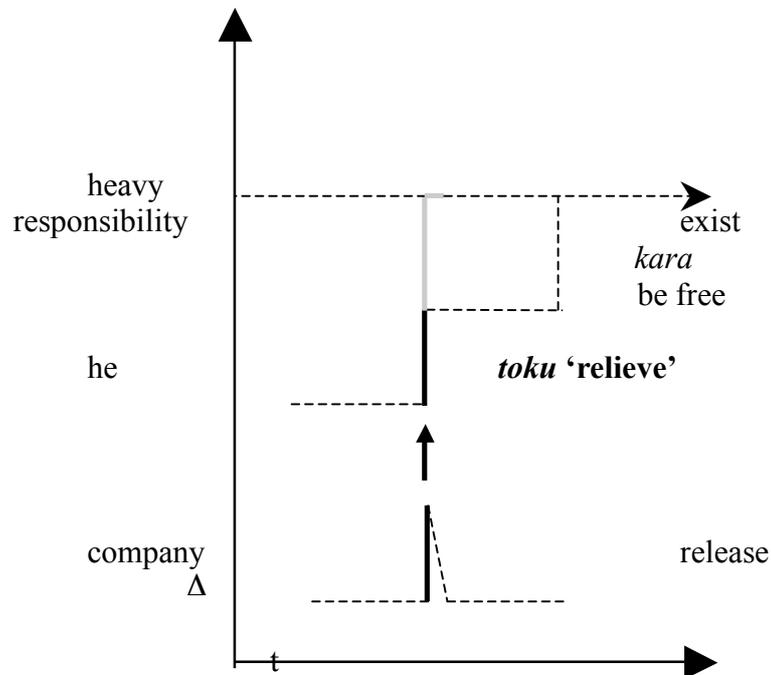
Figure 28b. achievement construal of Reversed A-linking of toku *'relieve' in (138): possessional transfer reading*
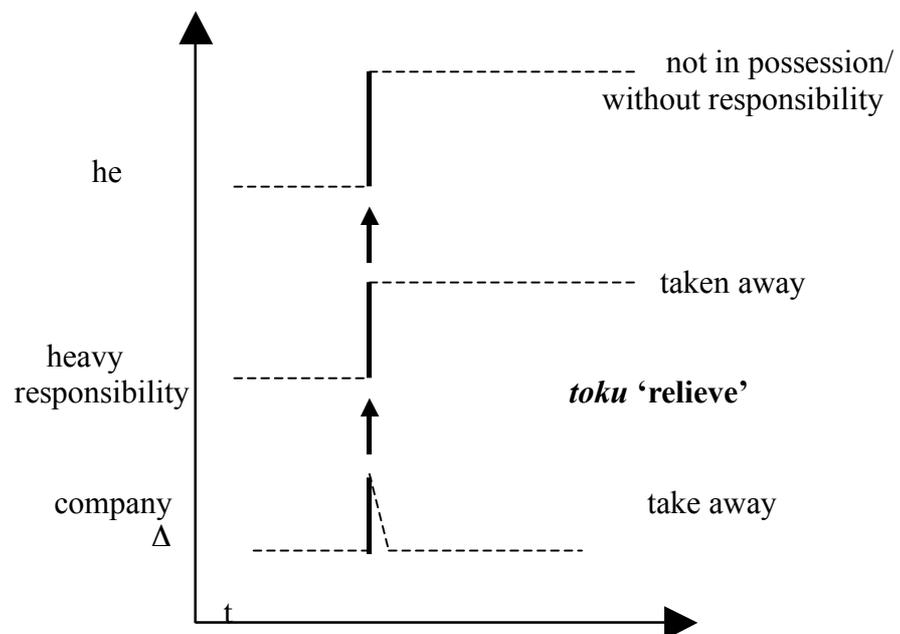
6.4.13. Type 13 *Kai.nin-suru* 'dismiss' verbs

6.4.13.1. Members

The following are some members of this verb type.

> *kai.nin-suru* 'relieving.duty-do = dismiss',
> *kai.shoku-suru* 'relieving.job-do = dismiss',
> *men.shoku-suru* 'exempting.job-do = dismiss',
> *hi.men-suru* 'stop.relieve = dismiss, remove',
> *kai.ko-suru* 'relieving.employment-do = dismiss, discharge'

6.4.13.2. Semantics

The verbs of this category all refer to events of removing somebody from his/her position in an organisation like a company or a ministry. With the exception of *hi.men-suru,* they are all figure incorporation verbs; the first part corresponds to verbs of type 12 (*kai* and *toku* (relieve), *men* and *menjiru* (exempt)), which has reversed A-linking, and the second part refers to the figure, which is to be removed (abstract notion). In this case, it is the position of a person. The relation between a person and a position is abstract. However, in this connection, previous discussion of verbs of type 12 should be recalled, where I discuss that an abstract notion to be removed is construed as the figure and a person from whom it is taken away is construed as the ground. As the first part of the VN verbs is a type 12 verb, I also assign the function the ground to the person who is dismissed and the figure to the position from which one is removed. The relation between the figure and the ground is identificational (a filler to its role as Steve = branch manager).

6.4.13.3. Syntactic patterns

These verbs do not permit A-linking. They also sound unnatural with reversed A-linking. The fact that the figure and the ground are in an identificational relation may

make the reversed A-linking difficult. As they refer to the same person by using the

two nouns (the names of a person and his position), the linking which makes the two

asymmetrical by assigning one accusative and the other oblique is not felicitous.

A-linking
(149) *Kaisha   wa   shitenchou   o   Steve kara kai.nin-shi-ta.
        company TOP branch.manager ACC Steve ABL relieve.duty-do-PAST
        *The company dismissed branch manager from Steve.

??Reversed A-linking
(150)
    ??Kaisha wa Steve o   shitenchou   kara kai.nin-shi-ta.
      company TOP Steve ACC branch.manager **SRC** relieve.duty-do-PAST
        The company dismissed Steve from a branch manager.

On the other hand, G-linking is acceptable. The use of genitive case fits into the (G)

use of genitive in example (6) in §6.3; A is an attribute of B in 'A *no* B'.

G-linking
(151) Kaisha   wa   shitenchou   no   Steve o   kai.nin-shi-ta.
        company TOP branch.manager GEN Steve ACC relieve.duty-do-PAST
        The company dismissed Steve, whose is a branch manager.

The verbs of this category is grammatical with FA-linking but sounds unnatural with

GA-linking, as the following examples illustrate:

FA-linking

(152) Kaisha   wa   shitenchou   o   kai.nin-shi-ta.
        company TOP branch.manager ACC relieve.duty-do-PAST
        The company dismissed a branch manager.

??GA-linking

(153) ??Kaisha wa Steve o   kai.nin-shi-ta.
         company TOP Steve ACC relieve.duty-do-PAST
        The company dismissed Steve.

As we can see from the above examples, they sound better when the name of the

position appears as the direct object. Only *kai.ko-suru* 'relieving.employment-do' is

neutral; it can appear perfectly well with GA-linking. This suggests that most of the

verbs in this category require the figure to be specified more in the linking patterns above than in the case of an incorporated figure such as a duty or a job. That is, the verbs have only incomplete figure incorporation.

The behaviour of these verbs in relation to the passive forms as in (154) and (155) confirms that the construal of the above with the role as the figure and the person as the ground is correct[12].

Passive:

(154)
Shitenchou wa kai.nin-s-are-ta.
branch.manager TOP relieve.duty-do-PASS-PAST
The branch manager was dismissed.

(155)
Steve wa shitenchou o/*kara kai.nin-s-are-ta.
Steve TOP branch.manager ACC/*ABL relieve.duty-do-PASS-PAST
Steve was dimissed as the branch manager.

6.4.13.4. Causal and aspectual patterns

With these verbs, the agent removes the figure (the position) from the ground (person). Conventionally, they have an achievement construal as they cannot have the activity in progress reading with *te-iru* but the retrospective reading.

(156)
Kaisha wa shitenchou o kai.nin-shi-te-iru.
company TOP branch.manager ACC relieve.duty-do-TE-IRU
The company has dismissed a branch manager.
(existential)

---

[12] Compare (155) with the passive of type 10 verbs as follows.

(i)
John wa shitenchou kara/*o shirizoke-rare-ta.
John TOP branch.manager ABL/*ACC oust-PASS-PAST
John was ousted from the position of branch manager.

Both types refer to an event of dismissal. However, FG-construal is different as a person and a job is identificational, therefore, abstract. In Type 10, the situation is construed as the extended location of a person being expelled from the position, while it is construed as extended possession in type 13, where the position is taken away from the person.

6.4.13.5. Semantic representations

Here are the semantic structures for FA-linking and G-linking with this type of verb. In the following structure, the branch manager in FA-linking can be replaced by Steve, who is the branch manager (figure GEN ground) in G-linking. It should also be noted that the labelling of the two representations is slightly different. In Figure 29, the event is construed as dismissing from a social role and in Figure 30, it is construed as Steve's losing identification.

Figure 29. achievement construal of FA-linking of kai.nin-suru *'dismiss' in (152)*
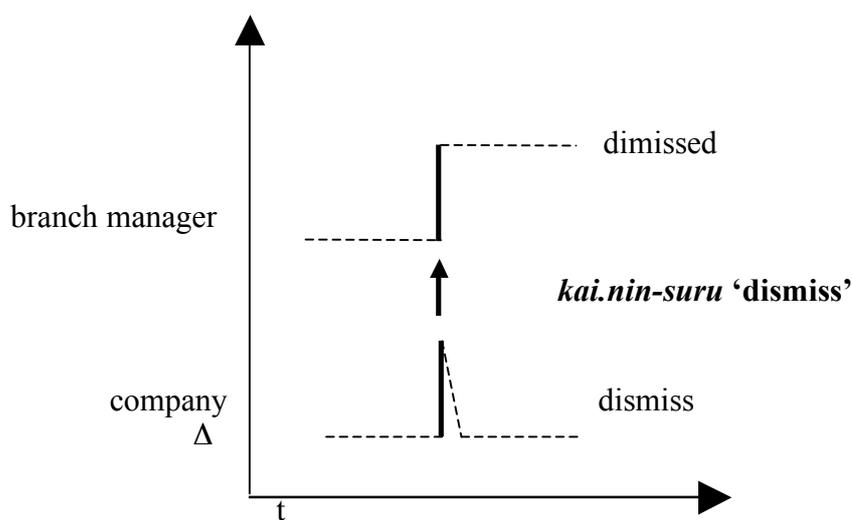
Figure 30. achievement construal of G-linking of kai.nin-suru *'dismiss' in (151)*
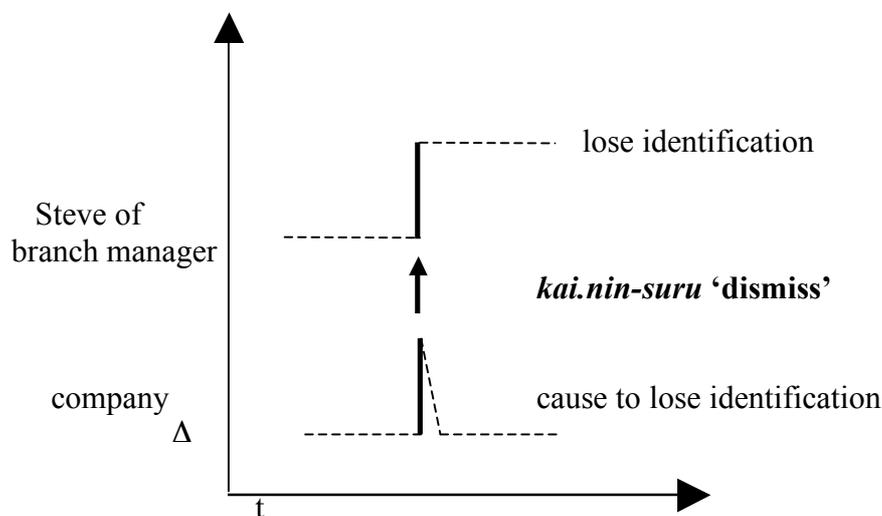
6.4.14. Type 14 *Sen.patsu-suru* 'wash hair' verbs: ground incorporation

6.4.14.1. Members

The following are the two members of this verb type:

> *sen.gan-suru* 'wash.face-do = face.washing-do'
> *sen.patsu-suru* 'wash.hair-do = hair.washing-do'

6.4.14.2. Semantics

The number of verbs in this category is less than that of ground incorporation verbs of putting in English and Japanese. They are VN-*suru* verbs of Chinese origin. The first part refers to a verb of removing and the second part to the ground (noun), from which the figure is caused to move. Actually the two examples I have found consist of *arau* 'clean' verbs as the first part and the figure, which is thought to be dust or some other impurity, syntactically is not realised.

6.4.14.3. Syntactic patterns

They appear as in intransitives without any direct object.

intransitive:

(157)
Kirstie wa   maiasa   sen.patsu-suru.
Kirstie TOP every.morning washing.hair-do
Kirstie washes her hair every morning.

Washing (one's) hair and washing (one's) face are reflexive activities, and there is no syntactic need for the ground to appear. However, when the activity is performed on somebody else as in (158), the ground is marked as accusative.

GA-linking

(158)
Kirstie wa   Jean no   kami o   sen.patsu-shi-ta.
Kirstie TOP Jean GEN hair ACC wash.hair-do-PAST
Kirstie washed Jean's hair.

Kirei ni the 'clean RST' phrase is compatible with making the event delimited.

(159)
Kirstie wa   Jean no   kami o   kirei ni   sen.patsu-shi-ta.
Kirstie TOP Jean GEN hair ACC clean RST wash.hair-do-PAST
Kirstie washed Jean's hair clean.

6.4.14.4. Causal and aspectual patterns

With these verbs the agent acts on the ground and makes it clean by removing impurities. They get an activity in progress reading with *te-iru*.

(160)
Kirstie wa   sen.patsu-shi-te-iru.
Kirstie TOP wash.hair-do-TE-IRU
Kirstie is washing her hair.

(161)
Kirstie wa   Jean no   kami o   sen.patsu-shi-te-iru.
Kirstie TOP Jean GEN hair ACC wash.hair-do-TE-IRU
Kirstie is washing Jean's hair.

The undirected activity construal is possible as the event of washing hair does not necessarily entail that the hair becomes clean.

(162)
Kirstie wa   sen.patsu-shi-ta   ga kirei ni   nar-anakat-ta.
Kirstie TOP wash.hair-do-PAST but clean RST become-not-PAST
Kirstie washed her hair, but it did not become clean at all.

The accomplishment construal is also possible with these verbs. We can wash our hair

or our face gradually, making it clean bit by bit, even though this is not so common.

(163)
Kirstie wa   Jean no   kami o   sukoshizutsu sen.patsu-shi-ta.
Kirstie TOP Jean GEN hair   ACC little.by.little wash.hair-do-PAST
Kirstie washed Jean's hair little by little.

6.4.14.5. Semantic representations

The activity construal of the intransitive version and the accomplishment construal of

GA-linking are presented as below.

Figure 31. undirected activity construal of intransitive linking of sen.patsu-suru *'wash hair' in (157)* (cf. Croft 2000: 59 Figure 5 § 3.4)
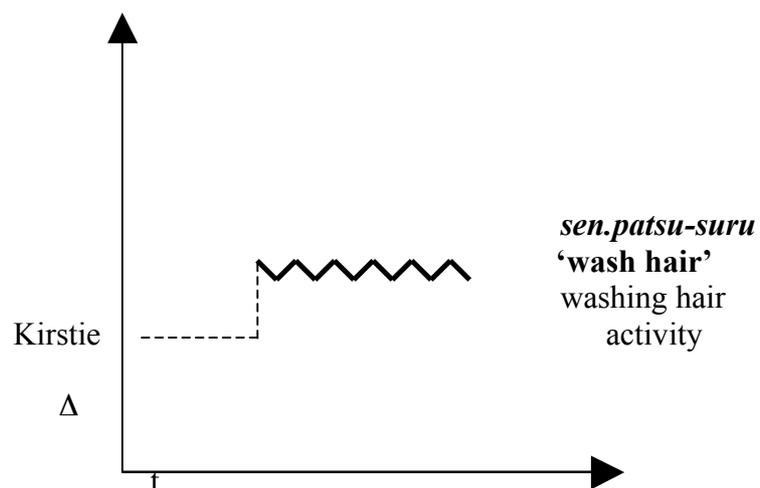
Figure 32. accomplishment construal of GA-linking of sen.patsu-suru *'wash hair' in (158)* (cf. Croft 2000: 73, Figure 25 §3.5.3 similar to transitive dressing)
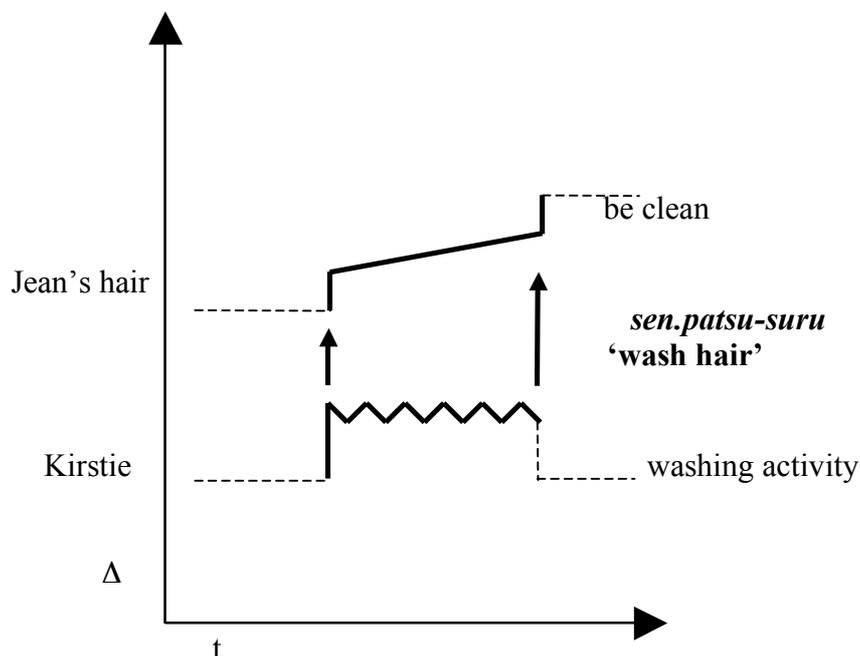
6.4.15. Type 15 *Hai.sui-suru* 'drain water' verbs: figure incorporation 1

6.4.15.1. Members

The following are the two members of this verb type:

> *hai.sui-suru* 'put away/remove-water-do = drain'
> *hai.ki-suru* 'put away/remove-air-do = exhaust gas'

6.4.15.2. Semantics

This category corresponds to type 14 figure-incorporation type 1 in verbs of putting[13].

They are figure incorporation verbs (similar to *pit* verbs in Levin's classification). The first part of VN refers to the removing action and the second part to the figure, which is caused to move or change its location. The verbs denote spatial removal.

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[13] There are three subpatterns for figure incorporation type 1 of verbs of putting (see footnote 23 of the §5). For verbs of removing, there is only one pattern which is similar to pattern 1 of figure incorporation type of verbs of putting, which allow the path pattern.

346

6.4.15.3. Syntactic patterns

These verbs allow A-linking and also allow G-linking, where genitive case indicates the locational relation between the figure and the ground, and also the goal phrase, which indicates where the figure moves to.

A-linking

(164)
Haha   wa   senmenjo kara yogoreta mizu o   hai.sui-shi-ta.
mother TOP wash.basin ABL dirty   water ACC remove.water-do-PAST
Mother drained the dirty water from the washbasin.

G-linking

(165)
Haha   wa   senmenjo no   yogoreta mizu o   hai.sui-shi-ta.
mother TOP wash.basin GEN dirty   water ACC remove.water-do-PAST
Mother drained the dirty water in the washbasin.

Goal-phrase

(166)
Haha   wa   mizo ni   yogoreta mizu o   hai.sui-shi-ta.
mother TOP ditch ALL dirty   water ACC remove.water-do-PAST
Mother drained the dirty water to the ditch.

path pattern

(167)
Haha wa senmenjo kara mizo ni   yogoreta mizu o   hai.sui-shi-ta.
mother TOP wash.basin ABL ditch ALL dirty   water ACC remove.water-do-PAST
Mother drained the dirty water from the wash basin to the ditch.

What is interesting is that even though they are figure incorporation verbs compositionally, they do not take the ground only (without the figure) as the only argument other than the agent. They do not take GA-linking. They do not allow even GO-linking. That is, the verbs only partially incorporate the figure (incomplete incorporation). This is very different from the figure incorporation verbs 1 of verbs of putting, which allow GO-linking. One explanation is that the verbs of this type are used almost as frozen expressions. They may be treated as type 2 or type 9 verbs of removing.

*GA-linking

(168)
*Haha   wa   senmenjo o   hai.sui-shi-ta.
 mother TOP wash.basin ACC remove.water-do-PAST
 Mother drained the washbasin.

*GO-linking

(169)
*Haha   wa   senmenjo   kara   hai.sui-shi-ta.
mother TOP wash.basin ABL remove.water-do-PAST
Mother drained from the washbasin.

They take FA-linking.

FA-linking

(170)
Haha   wa   yogoreta mizu o   hai.sui-shi-ta.
mother TOP dirty   water ACC remove.water-do-PAST
Mother drained the dirty water.

6.4.15.4. Causal and aspectual patterns

With these verbs the agent removes the figure from the ground. Aspectually, they conventionally select the accomplishment reading (or the directed activity reading without any end point). They get the activity in progress reading with *te-iru* and are also compatible with the adverbs, *tochuumade* 'halfway' and *sukoshizutsu* 'little by little', as shown by the following example:

(171)
Haha wa senmenjo kara yogoreta mizu o   hai.sui-shi-te-iru.
mother TOP wash.basin ABL dirty   water ACC remove.water-do-TE-IRU
Mother is draining dirty water from the washbasin. (activity in progress)

(172)
Haha wa senmenjo kara yogoreta mizu o   tochuumade hai.sui-shi-ta.
mother TOP wash.basin ABL dirty   water ACC halfway   remove.water-do-PAST
Mother drained dirty water from the washbasin halfway.

(173)
Haha wa senmenjo kara yogoreta mizu o   sukoshizutsu hai.sui-shi-ta.
mother TOP wash.basin ABL dirty   water ACC little.by.little   remove.water-do-PAST
Mother drained dirty water little by little from the washbasin.

6.4.15.5. Semantic representations

The proposed semantic structure follows:

Figure 33. accomplishment construal of G-linking of hai.sui-suru *'drain water' in (165)*
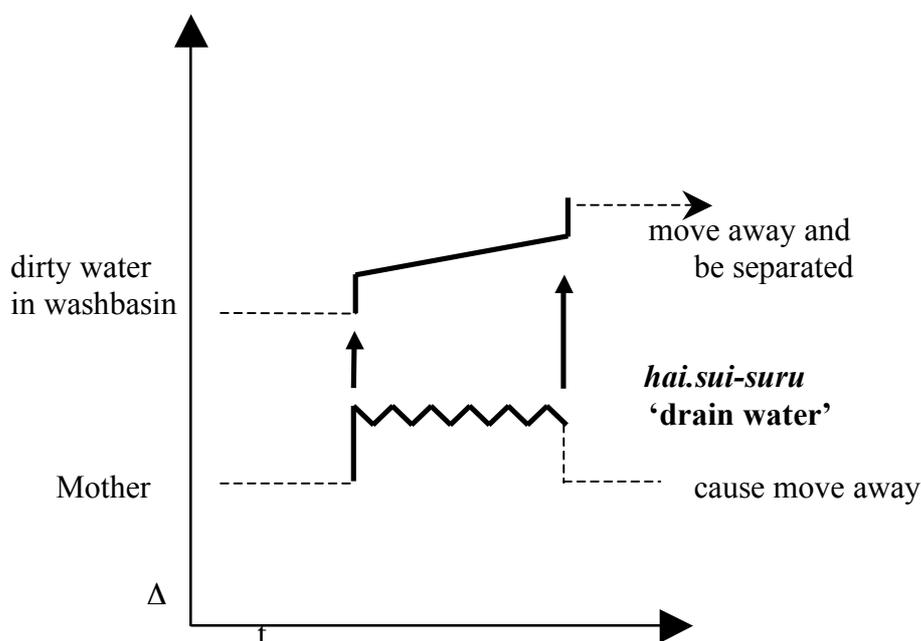
6.4.16. Type 16 *Jo.setsu-suru* 'clear of snow' verbs: figure incorporation 2

6.4.16.1. Members

The following are some members of this verb type:

> *jo.setsu-suru* 'removing.snow-do = clear of snow',
> *jo.shitsu-suru* 'removing.moist-do = dehumidify'

6.4.16.2. Semantics

The first element of VN is a verb of removing and the second indicates the figure, what is removed. Unlike in the previous type, the figure can be fully incorporated, in which case it does not appear syntactically. It can also be partially incorporated, in which case, the figure argument that adds specific meaning to the type of figure appears in the syntax. From the data I have collected, the first element of these verbs

are all simple verbs of type 1 such as *nozoku, nuku* 'remove'.

6.4.16.3. Syntactic patterns

Unlike the previous type, these verbs allow GA-type linking as well as FA-type

linking (such as A-linking). The following examples illustrate:

A-linking (incomplete incorporation)
(174)
Josetsuki   wa   hodou   kara shinsetsu   o   jo.setsu-shi-ta.
snowplough TOP pavement ABL fresh.snow ACC remove.snow-do-PAST
The snowplough removed the fresh snow from the pavement.

G-linking (locational)
(175)
Josetsuki   wa   hodou   no   shinsetsu   o   jo.setsu-shi-ta.
snowplough TOP pavement GEN fresh.snow ACC remove.snow-do-PAST
The snowplough removed the fresh snow on the pavement.

FA-linking
(176)
Josetsuki   wa   shinsetsu   o   jo.setsu-shi-ta.
snowplough TOP fresh.snow ACC remove.snow-do-PAST
The snowplough removed the fresh snow.

GA-linking (complete incorporation)
(177)
Josetsuki   wa   hodou   o   jo.setsu-shi-ta.
snowplough TOP pavement ACC remove.snow-do-PAST
The snowplough cleared the pavement.

*GO-linking
(178)
*Josetsuki   wa   hodou   kara jo.setsu-shi-ta.
 snowplough TOP pavement ABL remove.snow-do-PAST
The snowplough cleared of the pavement.

*Goal phrase
(179a)
   *Josetsuki   wa   hodou   ni   shinsetsu   o   jo.setsu-shi-ta.
  snowplough TOP pavement ALL fresh.snow ACC remove.snow-do-PAST
    *The snowplough removed the fresh snow to the pavement.

*Path pattern

(179b)
*Josetsuki wa hodou   kara torakku ni   shinsetsu o   jo.setsu-shi-ta.
snowplough TOP pavement ABL truck   ALL fresh.snow ACC remove.snow-do-PAST
    *The snowplough removed the fresh snow from the pavement to the truck.

The unacceptability of GO-linking is an asymmetrical characteristic when we compare

the verbs of this category with the corresponding type in verbs of putting (type 15). I shall return to this later.

6.4.16.4. Causal and aspectual patterns

The agent removes/takes away the figure from the ground. Therefore, the causal order is the agent, the figure and the ground. However, as we can see, in complete figure incorporation, the ground can be construed as being directly acted on by the agent through the removal of the figure, which is located in the ground. Aspectually, the verbs have a directed activity reading or an accomplishment reading since the figure which is incorporated into these verbs refers to an uncountable entity which it is possible to remove little by little and also the ground serves as a natural end point for the event; when the ground becomes clear, then the event ends. *Kirei ni* 'clean RST' enforces the accomplishment reading.

(180) Josetsuki   wa   hodou   kara shinsetsu o   jo.setsu-shi-te-iru.
snowplough TOP pavement ABL fresh.snow ACC remove.snow-do-TE-IRU
The snowplough is removing the fresh snow from the pavement.

(181) Josetsuki wa hodou   kara shinsetsu o   tochuumade jo.setsu-shi-ta.
snowplough TOP pavement ABL fresh.snow ACC halfway   remove.snow-do-PAST
The snowplough removed the fresh snow from half the pavement.

(182) Josetsuki wa hodou   kara shinsetsu o   sukoshizutsu jo.setsu-shi-ta.
snowplough TOP pavement ABL fresh.snow ACC little.by.little   remove.snow-do-PAST
The snowplough removed the fresh snow little by little from the pavement.

6.4.16.5. Semantic representations

The following are the accomplishment construal of A-linking and GA-linking *of*

jo.setsu-suru 'clear snow'.

Figure 34. accomplishment construal of A-linking of jo.setsu-suru *'clear snow' in (174) and (182)*
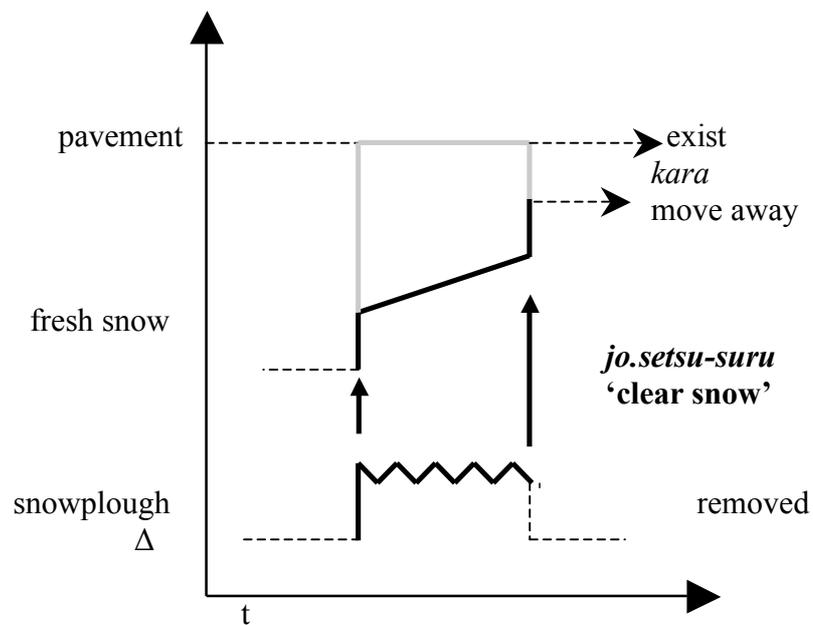
Figure 35. accomplishment construal of GA-linking of jo.setsu-suru *'clear snow' in (177)*
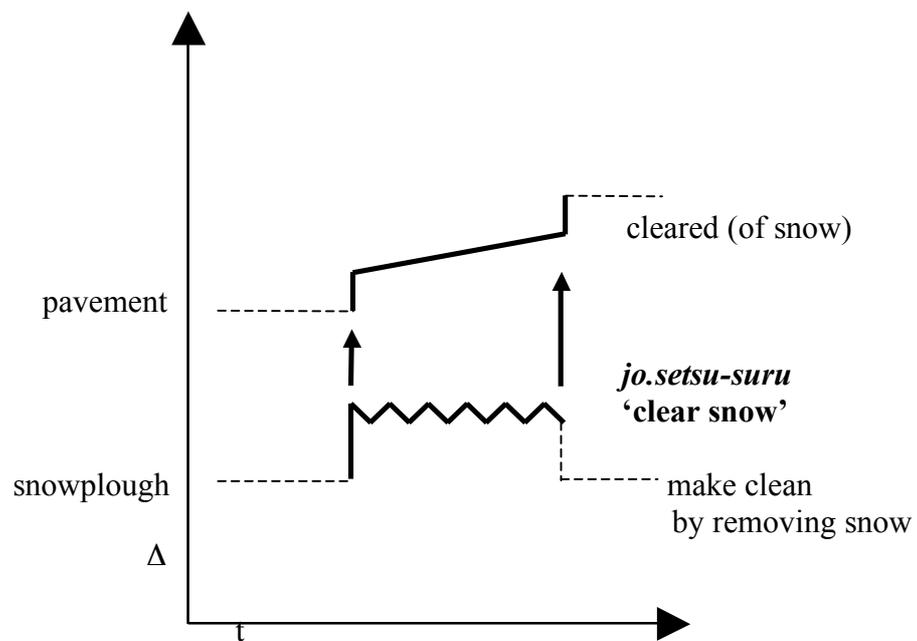
As we have seen, there is no encoding for GO-linking of the verb. Thus, the following representation is prohibited.

Figure 36. accomplishment construal of *GO-linking (ungrammatical) of jo.setsu-suru *'clear snow' in (178)*
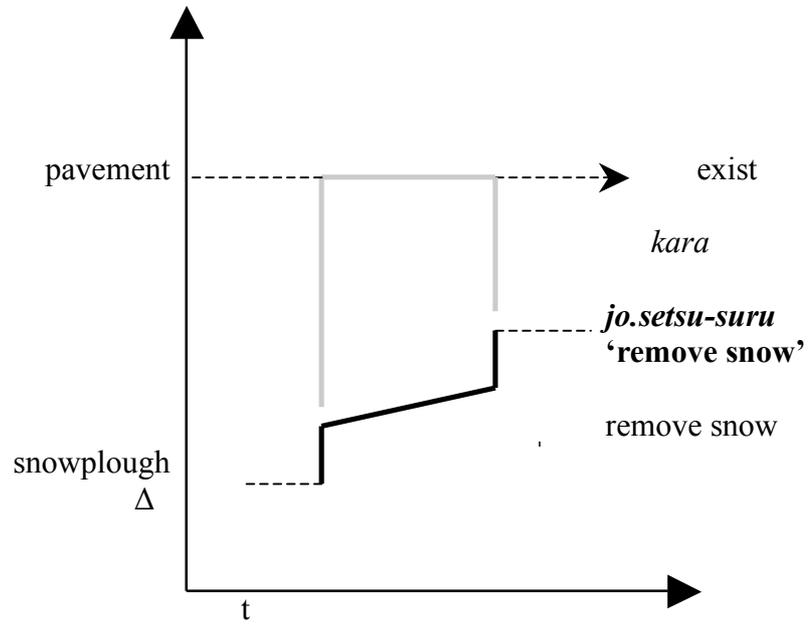
6.4.17. Type 17 *Nuki-dasu* 'pull.out-take.out' verbs: means compound 1 with specified direction

6.4.17.1. Members

The two categories below are classified according to the way component verbs are

integrated into compounds (cf. §5.4.16-17).

> (middle compounds)
> *tori-dasu* 'take-take out = take out',
> *nuki-dasu* 'pull out-take out = pull out',
> *tori-modosu* 'take-return = take back',
> *shibori-dasu* 'squeeze-take out = squeeze out'

> (pure means compounds)
> pattern 1:
> *mochi-dasu* 'take-take out = take out',
> *tsumami-dasu* 'pinch/pick-take out = pick out',
> *kiki-dasu* 'listen/hear-take out = find out',
> *sasoi-dasu* 'invite/lure-take out',
> *haki-dasu* 'sweep-take out'

> pattern 2
> *arai-dasu* 'dig up one's past',
> *shime-dasu* 'lock out'

> VN-suru
> *hou.shutsu-suru* 'release.take out-do'

6.4.17.2. Semantics

Verbs of this category include compounds or VN-*suru* verbs. For compounds, V1

specifies how the spatial (extended spatial) transfer of an entity is carried out. V2

indicates the caused-motion with specified direction. In verbs of removing, *dasu* 'take

out' (type 2-1 verbs of removing) predominantly appears as V2. This type corresponds

to the §5.4.16 verb of putting means compound 1 pattern. Compound verbs of this

type (especially with *dasu*) appear very extensively and are productive. Various kinds

of verb classes can appear as the V1-means component as we can see in the

corresponding types of compound verbs of putting. For Chinese-origin VN verbs, both of the two parts of the VN are verbs; the first is equivalent to V1 (specifying means) and the second to V2 (specifying caused-motion and direction/location). Theoretically, there can be Japanese VN verbs, but I have been totally unable to find data in the so far and further efforts will be left to future study.

6.4.17.3. Syntactic patterns

The syntactic patterns this category manifests correspond to those of type 2 verbs. The means compounds I am treating here are all right-headed; the argument structure of V2 verbs is carried onto that of compound verbs. Therefore, they take A-linking, allow the goal phrase, but prohibit GA-linking. G-linking depends on the relations between the figure and the ground and varies according to the verb. The following examples illustrate:

A-linking

(183) Jimuin wa   tana kara shorui   o   nuki-dashi-ta.
       clerk   TOP shelf ABL document ACC pull.out-take.out-PAST
       The clerk took the document off the shelf by pulling it.

?G-linking (varies)

(184) Jimuin wa   tana no   shorui   o   nuki-dashi-ta.
       clerk   TOP shelf GEN document ACC pull.out-take.out-PAST
       The clerk took the document on the shelf off of it.

(185) ??Chichi wa   heya no   neko o   shime-dashi-ta.
       father   TOP room GEN cat   ACC shut-take.out-PAST
       Father shut the cat out of the room.

*FA-linking

(186) *Jimuin wa   shorui   o   nuki-dashi-ta.   (*as FNI)
       clerk   TOP document ACC pull.out-take.out-PAST
       The clerk took the document out.

(187) ??Chichi wa   neko o   shime-dashi-ta.
       father   TOP cat   ACC shut-take.out-PAST
       Father shut the cat out.

Goal phrase

(188)
Jimuin   wa   tsukue   ni   shorui   o   nuki-dashi-ta.
clerk   TOP   desk   ALL   document ACC   pull.out-take.out-PAST
The clerk pulled and took the document out on the desk.

*GA-linking

(189)
*Jimuin wa   tana   o   nuki-dashi-ta.
 clerk   TOP   shelf ACC pull.out-take.out-PAST
*The clerk took the shelf by pulling.

6.4.17.4. Causal and aspectual patterns

The compounds as a whole causally refer to an event of the agent moving the figure away from the ground specifying a means. This is mostly identical to type 2 verbs as the argument linking reflects the causal structure. However, the causal pattern is not so easily defined in terms of the semantic structure of V1 and the way V1 and V2 are combined. When V1 elaborates the schematic structure of V2, there may be a minor or major adjustment in the semantic structure of V1. We shall see some examples in the next sub-section. Aspect also varies according to the nature of the participants and also according to the means events which are specified by V1. It should also be noted that even V2 verbs themselves may have the achievement or accomplishment construals.

6.4.17.5 Semantic representations

Concerning the integration of the semantic structures of component verbs, there are mainly two types, the latter of which is further divided into two. One is what I call 'middle' compounds (see the previous chapter for discussion) and the other is pure means compounds. In verbs of removing, I subclassify the latter further into two patterns.

6.4.17.5.1. Middle compounds: *Nuki-dasu* **'**pull.out-take.out'

The following is an example of *nuki-dasu* with A-linking.

(190a)
Jimuin wa tana kara shorui o nui-ta.
clerk TOP shelf ABL document ACC pull.out-PAST
The clerk pulled the document from the shelf. (**V1—A-linking**)

(190b)
Jimuin wa tana kara shorui o dashi-ta.
clerk TOP shelf ABL document ACC take.out-PAST
The clerk took the document from the shelf. (**V2—A-linking**)

(190c)
Jimuin wa tana kara shorui o nuki-dashi-ta.
clerk TOP shelf ABL document ACC pull.out-take.out-PAST
The clerk took the document off the shelf by pulling it out.
(**compound—A-linking**)

Figure 37 shows the semantic representation for the V1, the V2, and the compound.

Figure 37. semantic structure for achievement construal of A-linking of nuki-dasu *'pull.out-take.out' in (190)*

In these middle compounds, V1 and V2 have identical argument structures with an identical unprofiled part and they have identical referents as their participants. Both of them have the caused-motion sense. However, V1 is more specific about how the caused-motion is carried out. The more schematic structure of V2 is superimposed on V1 and as a result, the argument structure of the compound is identical to both that of of the V1 and that of the V2. The V1, V2 and the compound all profile the same part of the event and also have the same unprofiled background. This first subtype ('middle compound') is similar to pair compounds in terms of the integration of semantic structures of composite verbs, in that it is not easy to define which argument structure is inherited into the compound.

6.3.17.5.2. Pure means compounds

6.3.17.5.2.1. *Mochi-dasu* 'take -take.out'

This is a compound that denotes extended causation and is the type which can be confused with manner compounds. As in verbs of putting, I treat this means compound as having extended causation.

(191a)
Steve wa kane o mot-ta.
Steve TOP money ACC take-PAST
Steve took money. (**V1**)

(191b)
Steve wa ie kara kane o dashi-ta.
Steve TOP house ABL money ACC take.out-PAST
Steve took money out of the house. (**V2—A-linking**)

(191c)
Steve wa ie kara kane o mochi-dashi-ta.
Steve TOP house ABL money ACC take-take.out-PAST
Steve took money out of the house. (**Compound—A-linking**)

Figure 38 is the representation for the V1, the V2, and the compound verb.

Figure 38. semantic structure for A-linking of mochi-dasu *'take-take.out' in (191)*

V1

money

be taken

motsu   money
'take'

John

take (hold of) John

Δ

t

V2

house

exist
kara
be unlocated

dasu **'take out'**

cause
unlocated

Δ

t

Compound

house

exist
kara
be unlocated

mochi-dasu
'take-take.out'

bag

motsu   *dasu*

John

cause unlocated
by holding

Δ

t
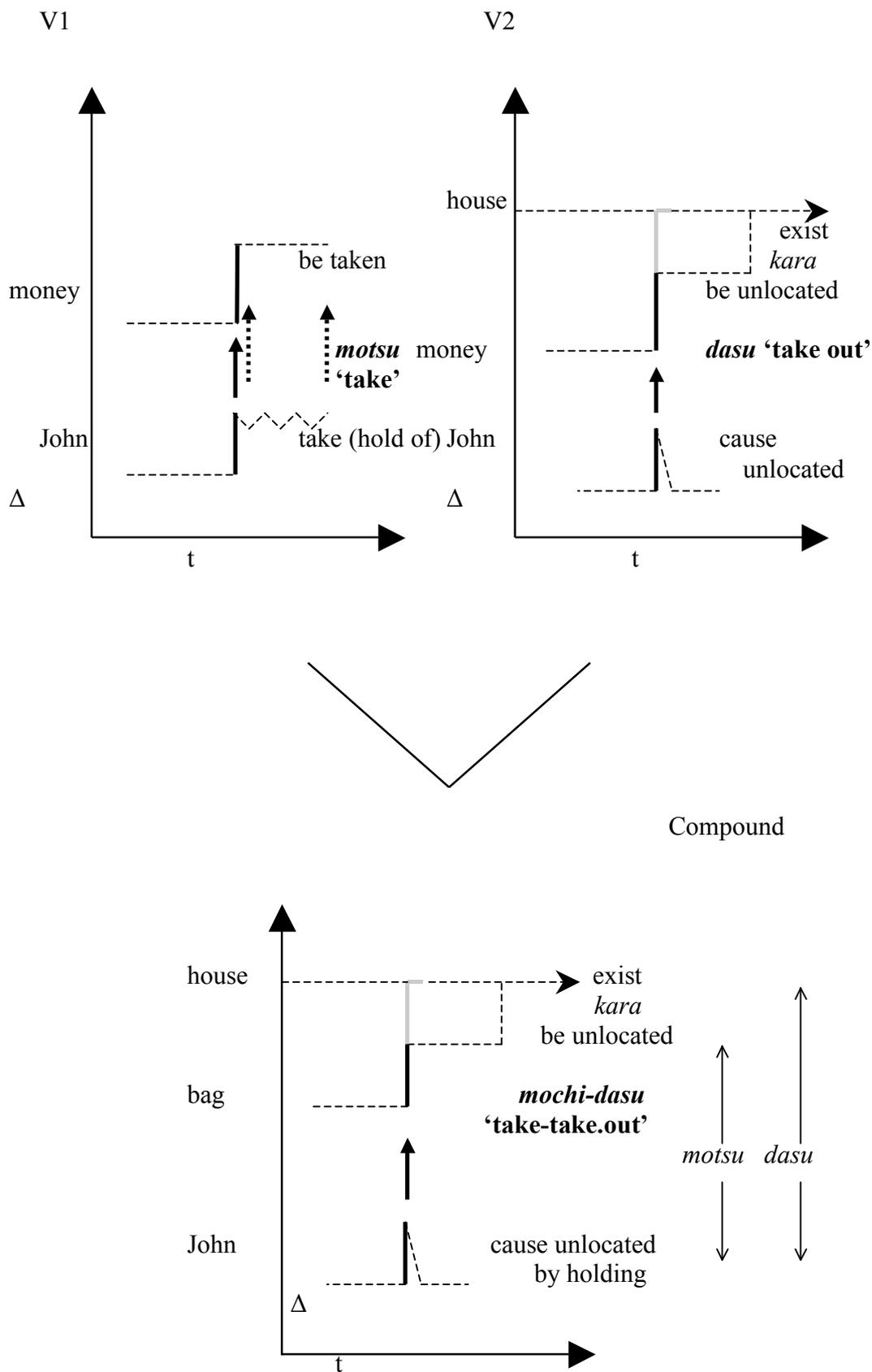
I represent the achievement reading of *mochi-dasu* here because it is difficult to think of a situation where it gets the activity or accomplishment construal even with *te-iru* unless the whole event is construed as a coarse-grained representation of multiple/repeated events of taking money. It favours the retrospective reading with *te-iru* and the event is achievement. The reason I call this extended causation is that the agent has to hold the figure to take it out from the ground. Holding something represents extended and "inactive" causation. The V1 verb, *motsu*, refers to the achievement event of somebody's taking hold of something. Therefore, it profiles the inceptive phase with an unprofiled result process. Since taking something is not the end of the event, it has the implication that the agent keeps hold of the entity by applying "invisible" force to it. The Japanese equivalent of *have* in *I have money* is entailed by *motsu* 'take' plus *te-iru*. Also, this *te-iru* is interpreted as the resultative state of the agent's taking hold of the money. The representation of V1 above refers to this reading of *motsu* and only profiles the inceptive phase and the implication of the agent's continuous effort is represented as the direct change of state in the agent's contour.

In pure means compounds, V1 does not have the identical argument structure to V2. In the example above, V1 is a two-argument verb that only specifies the agent and what is acted on. The representation of V2 is superimposed on that of V1 by overlapping the correponding shared entities (agent and figure). Also the composite structure inherits and preserves the argument structure of V2. In the above example, money is represented as what is acted on by the agent of V1 and V2; there is no alternation in the causal order in V1.

6.4.17.5.2.2. *Shime-dasu* 'shut-take.out'

The second pattern of pure means compounds is rarely found in compound verbs of putting. The integration of component structures involves a major adjustment, that is, in the causal order on V1.

(192a)
Chichi wa   *neko/??heya/doa o   shime-ta.
father TOP *cat/??room/door ACC shut-PAST
My father shut *the cat/??room/door. (**V1**)

(192b)
Chichi wa   neko o   heya kara dashi-ta.
father TOP cat   ACC room ABL take.out-PAST
My father put the cat out of the room. (**V2—A-linking**)

(192c)
Chichi wa   neko o   heya kara shime-dashi-ta.
father TOP cat   ACC room ABL shut-put.out-PAST
My father shut the cat out of the room. (**Compound—A-linking**)

Shimeru 'shut' is a two-argument verb and takes an exit or a kind of open place as direct object. Apparently, its semantic restriction on the direct object does not match with that of V2 or of the compound. An entrance of the entity which is construed as the ground in the compound is a referential entity to the direct object of V1. That is, a part of the ground of V2 or of the compound is construed as what is acted on directly by the agent in V1. Thus, the semantic structure of V1 is altered in terms of the causal order in that what comes after the agent in the causal order in V1 is forced to be the last participant in the causal order of the compound. Figure 39 is the semantic representation.

Figure 39. achievement construal of A-linking of shime-dasu *'shut-take.out' in (192)*

Actually, even the compound itself refers to the situation where the agent shuts or locks the entrance and does not let an animate thing in. That is, the agent can perform the action without actively applying force to the figure. What the compound denotes is also different from the V2 in terms of the force-dynamic relations, though the compound inherits the argument structure of the V2. The V2 denotes the active participation of the agent applying force on the figure. I differentiate the labelling of each participant in the semantic structure of the compound. The force which is applied to the figure is the act of keeping it away from a certain location. This force-dynamic relation is what Talmy (1988: 66) categorises as the case where the Agonist tends to have more force than the Antagonist (to come in, in this case). The force is applied to keep an entity out no matter whether it wants to come in or not. This exemplifies the argument of Langacker (1987: 281) that the composite structure may 'involve entities and specification beyond those provided by the components'. That is, compounds may place totally different semantic restrictions on arguments, to those placed on them by their component verbs.

In short, in this type of pure means compounds, there is an adjustment in the causal order in the semantic structue of V1 when it is superimposed by V2 and it elaborates an e-site of V2. Namely, the participant which is directly acted on by V1 verbs is altered so as to become the last participant in the compounds.

6.4.18. Type 18 *Arai-otosu* 'wash-remove' verbs: means compound 2

6.4.18.1. Members

The following are some members of this verb type:

> (middle compound)
> > *nusumi-toru* 'steal-take'
> > *huki-toru* 'wipe-remove' = remove by wiping
>
> (pure means compound)
> subpattern 1
> > *kiri-toru* 'cut-take/remove' = take/remove by cutting,
> > *sori-otosu* 'shave-remove' = remove by shaving
>
> subpattern 2
> > *damashi-toru* 'deceive-take' = take by deceiving
> > *arai-otosu* 'wash-remove' = wash by removing
> > *toki-hanatsu* 'relieve-release' = release
>
> VN-suru
> > *setsu.jo-suru* 'cut.remove-do'

6.4.18.2. Semantics

Most of the verbs in this class are compound verbs. V1 components indicate means and V2 components are verbs of removing which take A-linking. Unlike the previous type, they do not specify the direction of the move. Rather, they entail a certain change of state incidental to the caused-motion. This category corresponds to type 17 of verbs of putting. There is one Chinese VN verb; the first element represents means and the second represents removal. Again, there are two main groups of compounds according to the way V1 and V2 are integrated. The second group can be further sub-divided into two patterns. I show one example for each from compounds whose V2 elements are very productive; *toru* (take, remove) and *otosu* (remove) in the section of semantic representations (§6.4.18.5).

6.4.18.3. Syntactic patterns

They take FA-type linking such as A-linking or G-linking but not GA-linking.

A-linking

(193)
Ani   wa   kao kara hige o   sori-otoshi-ta.
brother TOP face ABL beard ACC shave-remove-PAST
My brother shaved the beard from his face.

G-linking

(194)
Otoko wa   rojin   no   kane   o   nusumi-tot-ta.
man   TOP old.man GEN   money ACC   steal-take-PAST
The man stole the money of the old man.

FA-linking

(195)
Ani   wa   hige o   sori-otoshi-ta.
brother TOP beard ACC shave-remove-PAST
My brother shaved off his beard.

*GA-linking

(196)
*Otoko wa   rojin   o   nusumi-tot-ta.
 man   TOP old.man ACC   steal-take-PAST
*The man stole the old man.

6.4.18.4. Causal and aspectual patterns

These comounds refer to events where the agent takes/removes the figure away from the ground. The aspectual pattern varies between achievement and accomplishment depending on the semantic nature of the figure and the ground and also on what kind of V1 is included in the compound. V2 verbs of removing (most of which are type 1) are more general in meaning than the V1, having less semantic restrictions on the kinds of arguments they take. The V2 is more schematic than the V1.

6.4.18.5. Semantic representations

I shall now show the semantic representation for three types: the middle compound, and the pure means compound with and without the adjustment on the causal order.

6.4.18.5.1. Middle compounds: *Nusumi-toru* 'steal-take'

This middle compound takes A-linking, so do the V1 and V2.

All A-linking

(197a)
Otoko	ga	roujin	kara	kane	o	nusun-da.
man	NOM	old.man	ABL	money	ACC	steal-PAST

The man stole money from the old man. (**V1**)

(197b)
Otoko	ga	roujin	kara	kane	o	tot-ta.
man	NOM	old.man	ABL	money	ACC	take-PAST

The man stole money from the old man. (**V2**)

(197c)
Otoko	ga	roujin	kara	kane	o	nusumi-tot-ta.
man	NOM	old.man	ABL	money	ACC	steal-take-PAST

The man stole money from the old man. (**Compound**)

The semantic representation of *nusumi-toru* is represented in Figure 40.

Figure 40. semantic structure for A-linking of nusumi-toru *'steal-take' in (197)*

Compound

The identical causal structures of the V1 and the V2 are integrated by superimposing the structure of the V2 onto that of the V1. As a result, the semantic structure of the compound is identical to those of both that of the V1 and V2.

6.4.18.5.2. Pure means compounds

6.4.18.5.2.1. *Sori-otosu* '**shave-remove**'

Here is an example of a pure means compound without the causal order alignment.

(198a)
Ani   wa   {kao no}   hige   o   sot-ta.
brother TOP   {face GEN}   beard ACC   shave-PAST
My brother shaved his beard {on the face}. (**V1—FA-linking**)

(198b)
Ani   wa   kao   kara hige   o   otoshi-ta.
brother TOP   face ABL   beard ACC   remove-PAST
My brother removed his beard from his face. (**V2—A-linking**)

(198c)
Ani   wa   kao   kara hige   o   sori-otoshi-ta.
brother TOP   face ABL   beard ACC   shave-remove-PAST
My brother removed his beard from his face by shaving.
(**Compound—A-linking**)

The semantic representation for this compound is proposed in Figure 41. *Soru* 'shave' takes FA-linking and G-linking but sounds strange (though not totally ungrammatical) in A-linking. It does not favour the argument linking of three participants. However, it is combined with *otosu* 'remove', and the resulting composite structure takes A-linking perfectly felicitously. The structure of V1 elaborates a more schematic V2 structure, so the V1 can be either a two or three-argument verb.

Figure 41. semantic structure for accomplishment construal of A-linking of sori-otosu *'shave-remove' in (198)*
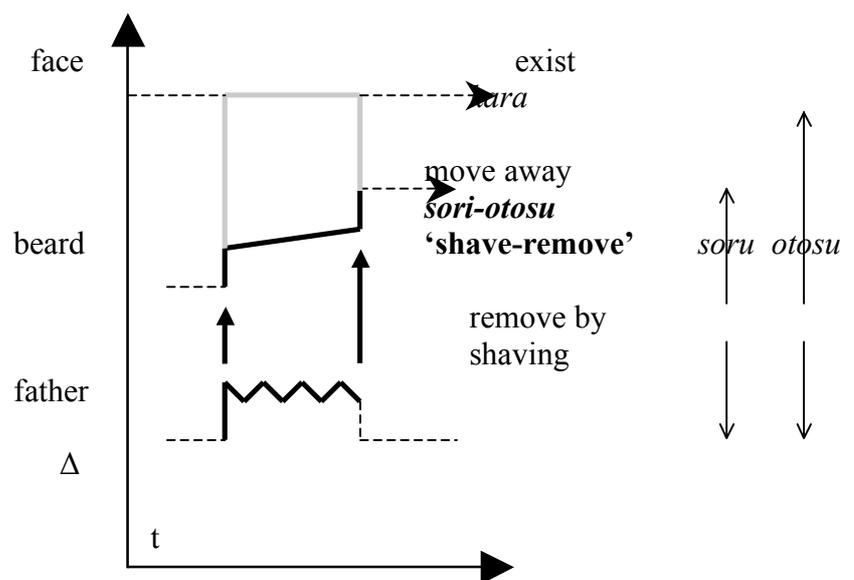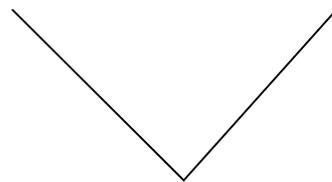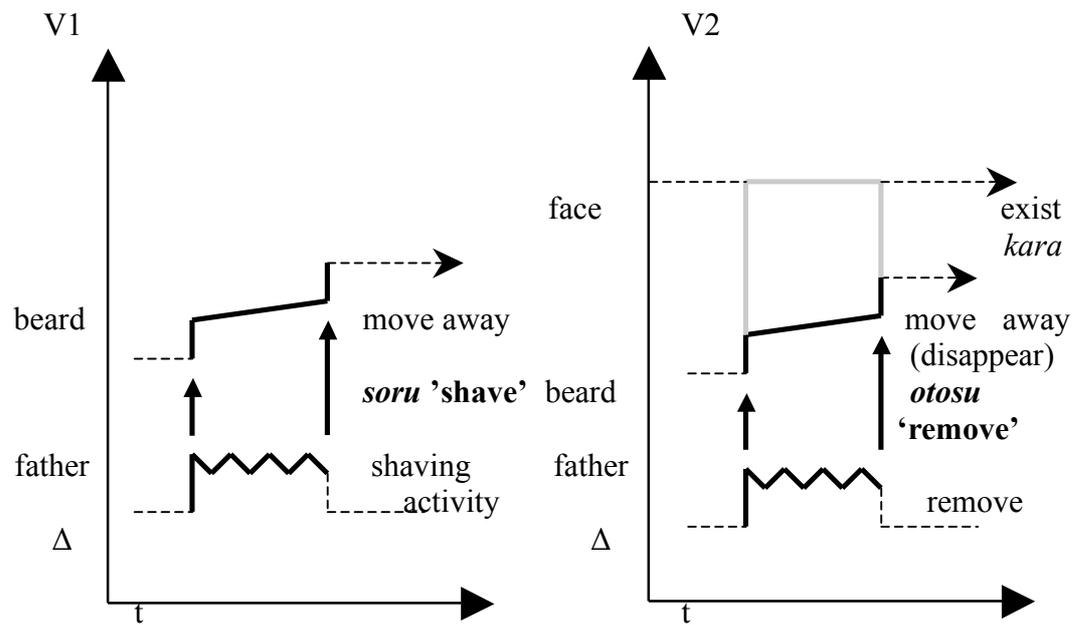
6.4.18.5.2.2. *Arai-otosu* 'wash-remove' and *damashi-toru* 'deceive-take'

In the following two examples, there is a more basic adjustment of the semantic structure of V1; the arguments that appear as the direct object get oblique status in the compounds.

Arai-otosu: (wash-remove)

GA-linking

(199a)
Wayne wa   huku   o   arat-ta.
Wayne TOP clothes ACC wash-PAST
Wayne washed clothes. (**V1—GA-linking**)

A-linking

(199b)
Wayne wa   huku   kara shimi o   otoshi-ta.
Wayne TOP clothes GEN stain   ACC remove-PAST
Wayne removed the stain from the clothes. (**V2—A-linking**)

A-linking

(199c)
Wayne wa   huku   kara shimi o   arai-otoshi-ta.
Wayne TOP clothes GEN stain   ACC wash-remove-PAST
Wayne washed the stain off the clothes. (**Compound—A-linking**)

GA-linking

(199d)
*Wayne wa   huku   o   arai-otoshi-ta.
Wayne TOP clothes ACC wash-remove-PAST
Wayne washed the clothes away. (**Compound--*GA-linking**)

The semantic representation for *arai-otosu* 'wash-remove' is shown in Figure 42.

Figure 42. semantic structure for acheivement construal of A-linking of arai-otosu *'wash-remove' in (199)*
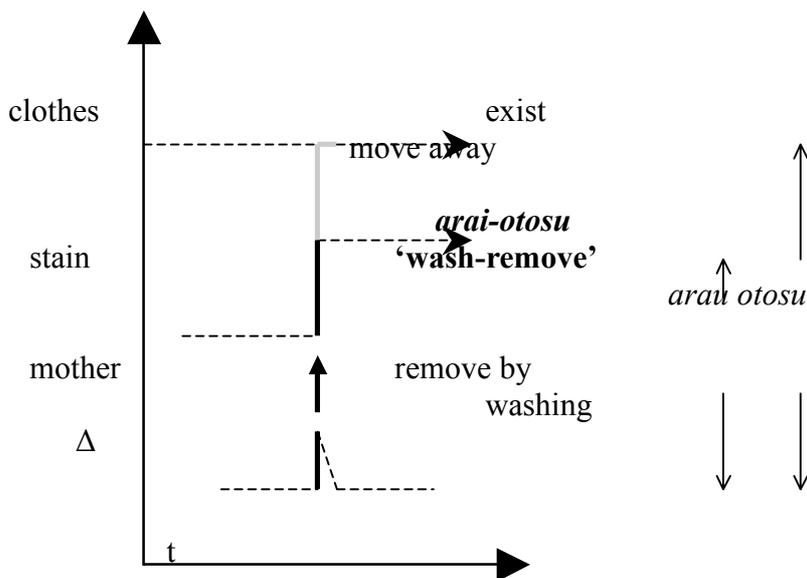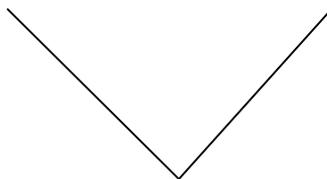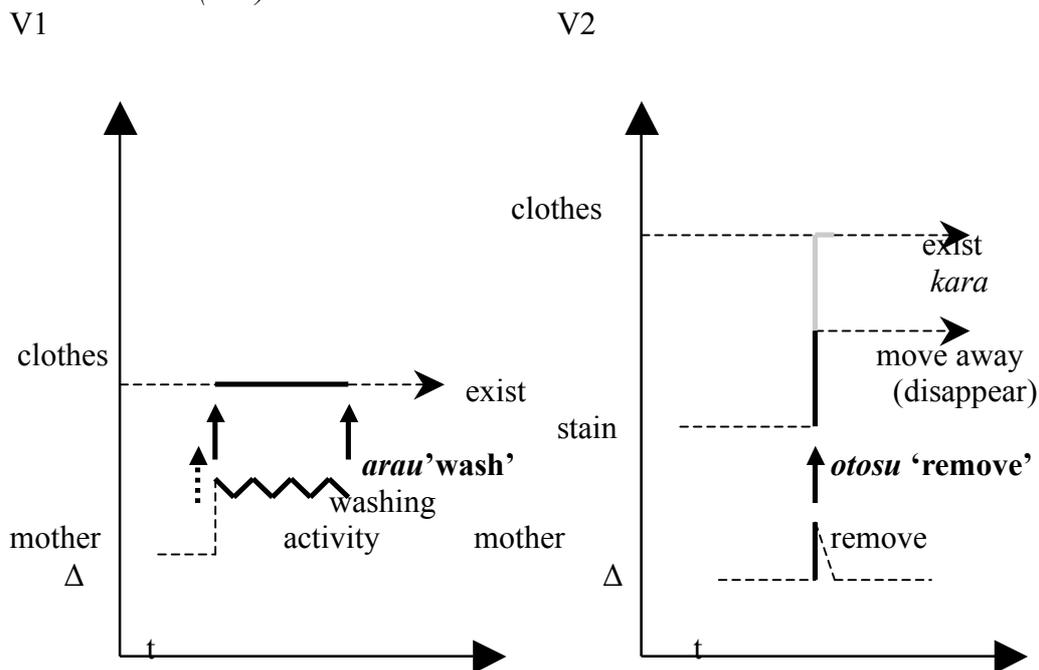
The semantic structure for *arau* 'wash' represents it as a processual activity without any specified change on the direct object since it is not necessary for it to become clean after washing even though becoming clean is a normally expected result. The event denoted by *otosu* 'remove' is represented as an achievement for convenience' sake, as it is difficult to imagine the accomplishment construal from the examples above, though they may get the accomplishment construal with different kinds of figure and ground. The semantic structure of the V1, which on its own takes the 'ground' (location) as the direct object, undergoes major changes in the causal order and is realised as an oblique in the composite structure. It should also be noted that the original linking of the V1 is prohibited in compound (see (199d)).

Here is another example where the acted on participant of the V1 is put at the end of the causal order in the compound.

Damashi-toru (deceive-take):

(200a)
Oliver wa   yuujin o   damashi-ta.
Oliver TOP friend ACC deceive-PAST
Oliver deceived his friend. (**V1—GA-linking**)

(200b)
Oliver wa   yuujin kara kane   o   tot-ta.
Oliver TOP friend ABL money ACC take-PAST
Oliver took money from his friend. (**V2—A-linking**)

(200c)
Oliver wa   yuujin kara kane   o   damashi-tot-ta.
Oliver TOP friend ABL money ACC deceive-take-PAST
Oliver took money from his friend by deceiving him/her.
(**Compound—A-linking**)

(200d)
*Oliver wa   yuujin o   damashi-tot-ta.
Oliver TOP friend ACC deceive-take-PAST
Oliver deceived and took his friend. (**Compound—*GA-linking**)

Damasu 'deceive' is a two-argument verb to which a source phrase is not added. It takes as the direct object a person who is capable of the mental activity of being deceived. The representation for the compound is shown in Figure 43.

Figure 43. semantic structure for the achievement construal of A-linking of damashi-toru *'deceive-take' in (200)*

V1   V2

friend

exist

kara
taken away

money

damashi-toru *damasu* *toru*
'deceive-take'
take away
by deceiving

Sue
Δ

t
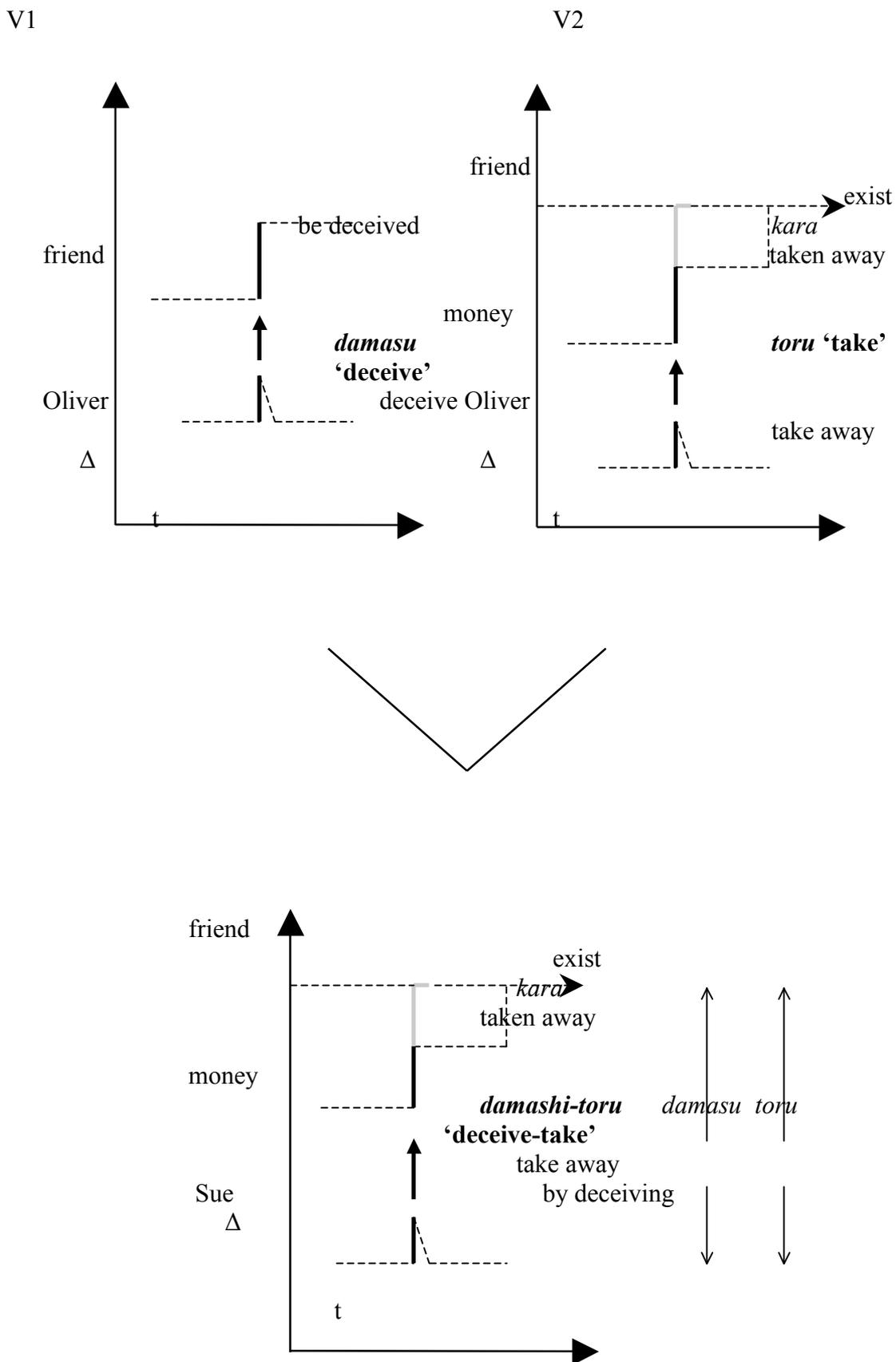
The V1 refers to the event of the agent's making a friend believe what he says by mentally acting on him. The V2 is a general 'taking away' action. As a result, the compound itself refers to the event which is causally complicated as it does not mean the physical taking away by force, unlike *nusumi-toru* 'steal-take', which does not entail the possessor's willingness. The agent acts on a person (the figure) mentally, that person decides to part with the possession (the ground) and acts on that possession to change the possessor; it goes to the agent and he takes it. However, in the syntax, the chain of these subevents is represented as the simple argument structure of the compound. It is still construed as the extended sense of spatial removal rather than the event of possessional transfer. The argument linking does not encode the victim's role as the deceived person giving money to the deceiver. Interestingly, even though in the real situation, the agent acts on the victim (the ground) first, the latter (the ground) is represented as the last participant in the causal order of the compound, from which the figure is taken away. Again, the example shows that the V2 is the determinant factor in terms of argument linking and the causal order. When the V1 elaborates the V2, the first acted upon participant of the V1 is placed at the end of the causal order of the compound. What is realised as the direct object of the V1 is marked as oblique in the compound, which prohibits the original linking of the V1 (see the example (200d) above). This "hybrid" type (mixture of verbs of FA-type linking and GA-type linking respectively) of means compounds is rarely seen in verbs of putting[14].

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[14] One might say *nui-tsukeru* 'sew-attach' is similar to the type (Figure 45, §5.4.17.5.2). However, *nuu* 'sew' has different senses as an V1 and in a compound, so we cannot say it is the alternate causal order case. (In verbs of removing, the ground of V1 and V2 are the same).

6.4.19. Type 19 *Haki-kiyomeru* 'sweep-cleanse' verbs: means compound 3

6.4.19.1. Members

The following are the two members of this verb type:

arai-kiyomeru 'wash-cleanse' = make clean by washing
haki-kiyomeru 'sweep-cleanse' = make clean by sweeping

6.4.19.2. Semantics

Like other means compounds, the V2 elements refer to events of removing (in a general way) and the V1 elements specify the means of the action. In this subclass, the V2s are verbs that take GA-linking.

6.4.19.3. Syntactic patterns

Inheriting the argument linking pattern from their V2, the compounds take GA-linking, but not FA-linking type (such as A-linking or G-linking). The figure is interpreted implicitly as an entity that is removed away, such as dust.

GA-linking

(201)
Soujihu wa   butai o   haki-kiyome-ta.
cleaner TOP stage ACC sweep-cleanse-PAST
The cleaner made the stage clean by sweeping.

*A-linking

(202)
*Soujihu wa   butai kara hokori o   haki-kiyome-ta.
 cleaner TOP stage ABL dust   ACC sweep-cleanse-PAST
 *The cleaner made the dust clean from stage by sweeping.

*G-linking

(203)
*Soujihu wa   butai no   hokori o   haki-kiyome-ta.
 cleaner TOP stage GEN dust   ACC sweep-cleanse-PAST
 *The cleaner made the dust from stage clean by sweeping.

6.4.19.4. Causal and aspectual patterns

With these compounds, the agent acts on the surface (the ground) to clear it of impurities. The impurities do not appear syntactically. The aspectual pattern follows that of *kiyomeru* 'cleanse'. This belongs to a subclass of type 7, and it does not have the activity in progress reading with *te-iru* unless in the runup achievement reading. It favours the retrospective reading, and also does not take the adverbial *sukoshizutsu* 'little by little' or *tochuumade* 'in halfway'[15]. It is an achievement verb specifying the final change of state of an entity. Compounds with this verb have similar characteristics. The following examples illustrates:

(204)
??Soujihu wa   butai o   haki-kiyome-te-iru.
 cleaner   TOP stage ACC sweep-cleanse-TE-IRU
??The cleaner is making the stage clean by sweeping.
The cleaner has cleaned the stage by sweeping. (run-up achievement)

(205)
??Soujihu wa   butai o   tochuumade haki-kiyome-ta.
 cleaner   TOP stage ACC halfway   sweep-cleanse-PAST
 The cleaner cleaned the stage by sweeping in halfway.

6.4.19.5. Semantic representations

The following examples are the two linking patterns (GA and G-linkings) of the V1, GA-linking of the V2 and GA-linking of the compound.

(206a)
Soujihu wa   butai o   hai-ta.
cleaner TOP stage ACC sweep-PAST
The cleaner swept the stage. (**V1—GA-linking**)

(206b)
Soujihu wa   butai no   gomi o   hai-ta.
cleaner TOP stage GEN dust ACC sweep-PAST
The cleaner swept dust on the stage. (**V1—G-linking**)

(206c)
Soujihu wa   butai o   kiyome-ta.
cleaner TOP stage ACC cleanse-PAST
The cleaner cleansed the stage. (**V2—GA-linking**)

---

[15] I have marked the example sentences with double question marks. As the V1 has an activity construal, the compound sounds slightly better in the sentences than *kiyomeru* 'purify' does on its own.

(206d) Soujihu wa   butai o   haki-kiyome-ta.
cleaner TOP stage ACC sweep-cleanse-PAST
The cleaner made the stage clean by sweeping. (**Compound—GA-linking**)

The proposed representation for *haki-kiyomeru* 'sweep-purify' is Figure 44.

Figure 44. semantic structure for achievement construal of GA-linking of haki-kiyomeru *'sweep-purify' in (206)*

V1

V2

stage

exist
haku
'sweep'
sweeping
activity

cleaner
Δ

t

stage

be clean

kiyomeru **'purify'**

cleaner
Δ

clean

t

stage

clean

haki-kiyomeru
'sweep-clean'

clean by
sweeping activity

haku kiyomeru

cleaner
Δ

t

379
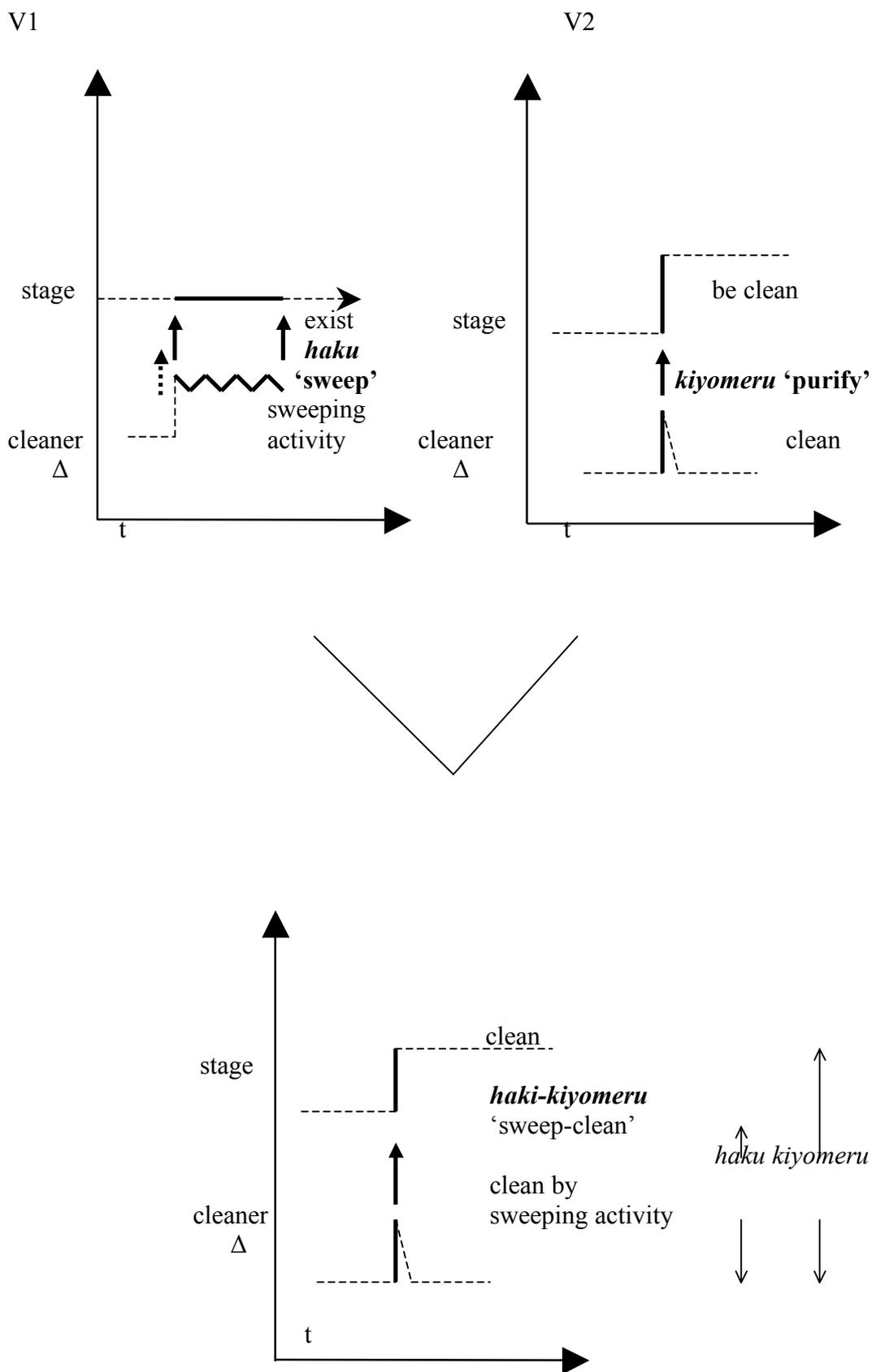
Haku₂ 'sweep' can have both GA-type linking and FA-type linking (G-linking). I take the view that in this case, the semantic structure of the GA-linking of the V1 is superimposed by that of V2 with concomitant change in aspectual pattern from undirected activity to achievement.

6.4.20. Other verb type

As in the case of verbs of putting, there are quite a few verbs in the data from other classes such as transfer of possession. Among them, there is one interesting verb class which is treated as verbs of removing in English, but should be categorised under another class in Japanese. I would call this 'mental request'. There are five verbs in this class.

> *nedaru* (A beg F from G, A beg G of/for F)
> *sebiru* (A pester G for F)
> *takaru* (A bum F off G)
> *kyou.you-suru* (A exact F from G)
> *you.kyuu-suru* (A deman F from/off G)

In Japanese, the above five verbs require the figure (an entity that is asked for) to be marked as *o* (Accusative) and the ground (a person who is asked) to be marked as *ni*.

(207) Otouto wa ryoushin ni atarashii jitensha o nedat-ta.
brother TOP parents ALL new bicycle ACC beg-PAST
My brother begged a new bicycle from my parents.

English construes these situations as the act of an agent's getting or trying to get the figure from the ground (provider). Japanese construes them as the acts of the agent's making a request to the ground. I am not sure about the proper causal structure for this at this moment. However, this clearly shows that similar situations are denoted by different classes of verbs in English and Japanese.

6.5. Summary

Verbs of removing are classified into 19 categories according to syntactic behaviours and semantics. The summary of the classification is in Appendix F. Like the table of verbs of putting (Appendix C), it shows (1) the class number, and (2) subclass number, (3) the name of the types, (4) the number of the members, (5) syntactic patterns, (6) acceptability of the goal phrase, (7) other syntactic patterns manifested, (8) aspectual patterns, and (9) other prominent characteristics. In syntactic patterns of verbs of removing, there are A-linking, G-linking, and FA-linking as FA-types, and RA-linking and GA-linking as GA-types. Besides the above features, I also present (10) the semantic relations between the figure and the ground.

Japanese does not have the locative alternation as in some English verbs of removing which alternate between the Path construction and the antecedent Oblique Of construction (cf. Croft 2000, §4.2). That is, no verbs of removing in Japanese alternate between the A-linking construction and the RA-linking construction. Instead, some verbs alternate between FA-type linking and GA-linking. A typical example is type 3 the *katazukeru* 'clear' verb. As in the discussion in verbs of putting, I analyse how different linkings reflect different construals. When an event in question is an accomplishment or directed activity, the verbal scale is associated with different participants; the figure with FA type linkings and with the ground with GA type linking. When there is an achievement construal, the figure is construed as the one that undergoes changes with FA-type linkings and the ground so construed with GA-type linkings. With the undirected activity construal, the participant that is acted on in FA-type linkings is the figure while that acted on in GA-type linkings is the ground.

6.5.1. Semantic structures of each argument linking construction

In summary, I shall show a schematic semantic structure for each construction.

6.5.1.1. A-linking construction

A-linking corresponds to L-linking in verbs of putting with the same 'Path construction'. It is the predominantly used construction for verbs of removing in Japanese. However, it sounds rather awkward to use A-linking for the whole-part relation or the impurities locational relation between figure and ground (see type 4 and 5) as the construction basically denotes 'spatial' removal. The whole-part relation is much closer than the locational relation. It is intuitively less acceptable to think that the skin of an apple is located on the apple or the dust on the floor.

The schematic representation is similar to that of L-linking except for the description of the subevent of the direct object.

Figure 45. Semantic structure for A-linking
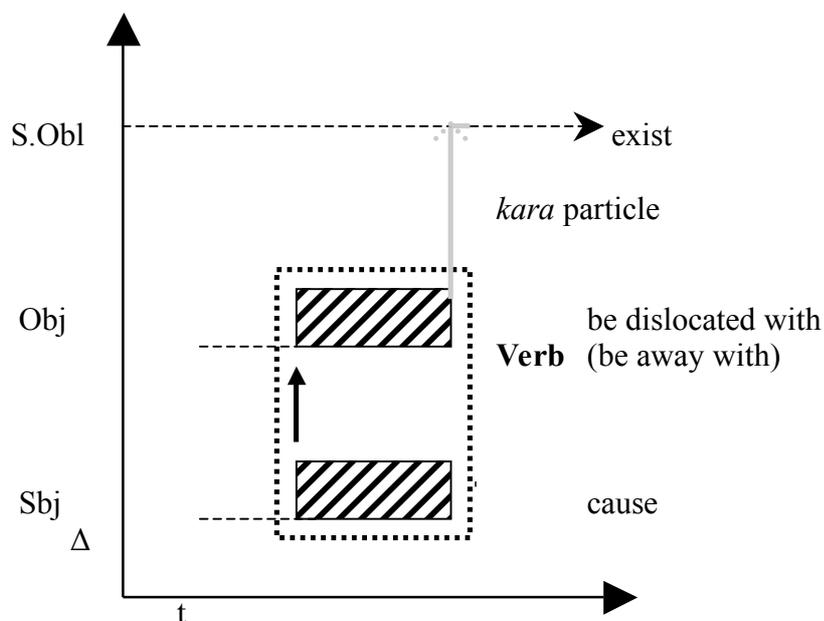
The striped boxes allow both punctual and extended causation. The direct object either moves away or become dislocated from the ground, which serves as a reference point. The relationship can be causal as in verbs of possessional deprivation (Figure 22, §6.4.8.5 type 8). Therefore, the possibility of the presence of an arrow (the causal relation) is illustrated with the dotted grey arrow. The representation above accommodates the directed activity construal as in Figure 1, the accomplishment construal as in Figure 2, the achievement construal as in Figure 4, or the runup achievement construal as in Figure 16.

6.5.2.2. G-linking construction

This construction is also frequently used. The compatibility with this construction of a certain verb depends on the relation between the figure and the ground. G-linking is used for locational relation, possessional relation, the whole-part relation, the (abstract) possessional, identificational but not for the extended locational relation.

We have also seen that there is a complexity in G-linking since verbs' lexical meaning may also interfere with the acceptability of this construction. First of all, it does not always designate the same relation between the figure and the ground with A-linking. As A-linking favours the spatial removal interpretation and G-linking denotes other relations as well, with verbs that allow FA-linking, such as type 8-1 and type 9 verbs, it is possible for G-linking to be further embedded in A-linking (examples (93) and (103)). Actually, G-linking is a special type of FA-linking construction. The difference is that the figure is modified by the ground in the Genitive case. Therefore, it is not surprising that G-linking, which is a subtype of FA-linking, is more specific and adds more information in the A-linking construction. Secondly, G-linking is not completely acceptable with some verbs, even though the

semantic relation between the figure and the ground conforms to one of the uses of the Genitive case presented in (6). For example, type 10 'excommunicate' verbs do not allow G-linking despite the fact that the figure and the ground are in an identificational and locational relation which *no* can modify (See (115) and (116)). This means that whether verbs are acceptable with G-linking also depends on the type of verb.

The following is the proposed analysis of the G-linking construction.

Figure 46. Semantic structure for G-linking
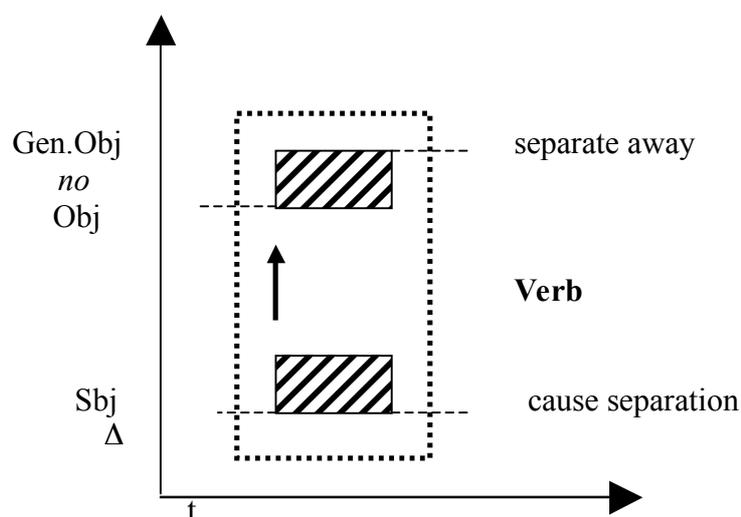
The striped boxes allow punctual and extended causation. The subject goes back to the rest state in its subevent contour while the direct object with a Genitive marker undergoes the change of state. I describe its subevent as "separate away" indicating that two entities which are close together in a spatial or abstract way, or in a whole-part relationship, are disconnected at the end of the event.

The schematic representation accommodates the accomplishment construal as in Figure 3, the achievement construal as in Figure 23, and the runup achievement

construal as in Figure 24.

6.5.1.3. RA-linking construction

Reversed-A-linking corresponds to I-linking in verbs of putting. However, this construction only occurs with type 12 Verbs. These verbs refer to very abstract notions of removing, so, the events are punctual. The verbs of type 12, when they occur with this construction, refer to the event of forgiving or pardoning somebody by taking away something painful.

Figure 47. Semantic structure for Reversed-A-linking
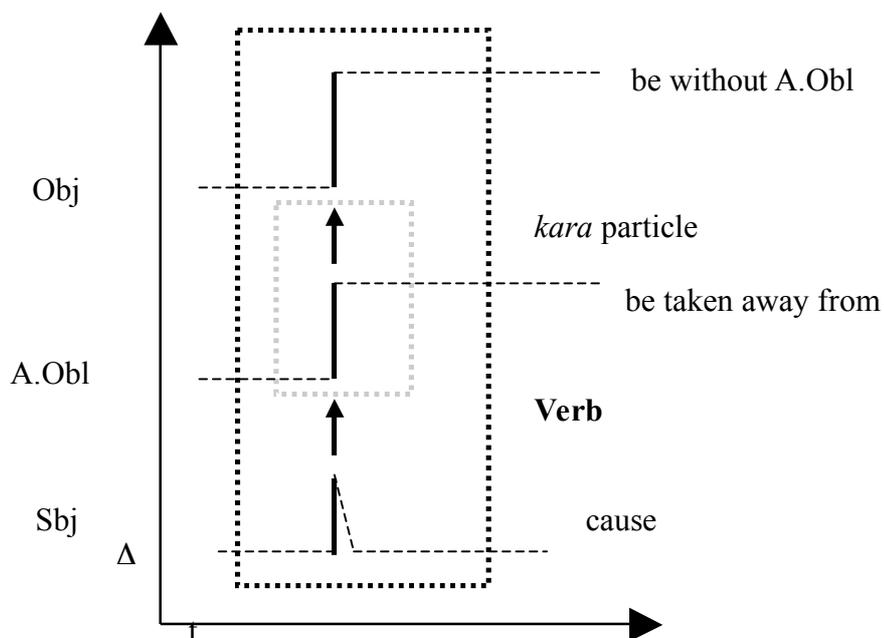
The representation is very similar to that of I-linking, except for the aspectual punctuality and the description of the subevents of the direct object and antecedent oblique. The black dotted box is the profile of the verb and the grey dotted box is that of the antecedent oblique marker.

6.5.1.4. FA-linking construction

Again, there are not so many examples of FA-linking constructions. The following is the proposed semantic structure for FA-linking in verbs of removing.

Figure 48. Semantic structure for FA-linking in verbs of removing
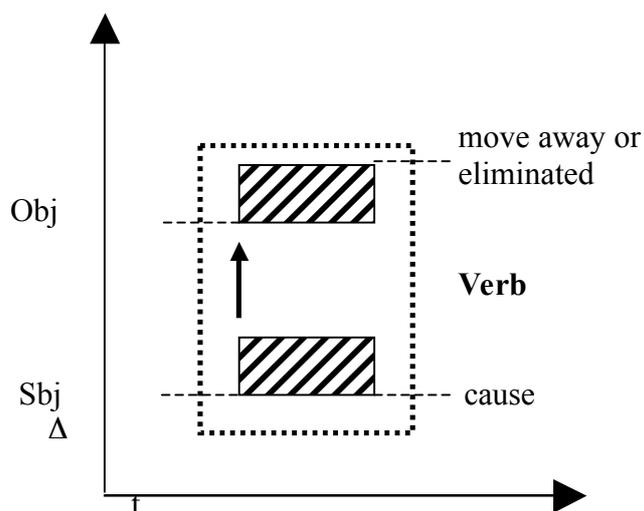
The representation above accommodates the achievement construal as in Figure 29. In the main text, I have not often illustrated FA-linking. Readers are asked to imagine that the semantic structure of FA-linking is similar to that of A-linking without the ground contour. That is, FA-linking can be realised in the accomplishment linking (Figure 2 without the ground contour) or the directed activity reading (Figure 1 without the ground contour).

The representation above is slightly different from that of FA-linking in verbs of putting in that the direct object contour ends up with a new state in Figure 48 above. With verbs of putting, when the figure is material such as paint, it is possible to have an undirected activity construal as we can add that material to somewhere over and over again without limit. However, in verbs of removing, the amount we can take or move away is already fixed even though it is not specifically realised. Removing

weeds from the garden has the natural end point; we cannot removing weeds indefinitely unless the garden is interpreted as a derived verbal scale or unless new weeds grow. That is, the removing/taking away of something is always directed away from the rest state.

6.5.1.5. GA-linking construction

Unlike with FA-linking, there are a lot of examples of GA-linking with verbs of removing. Here is the proposed semantic structure for GA-linking.

Figure 49. Semantic structure for GA-linking of verbs of removing
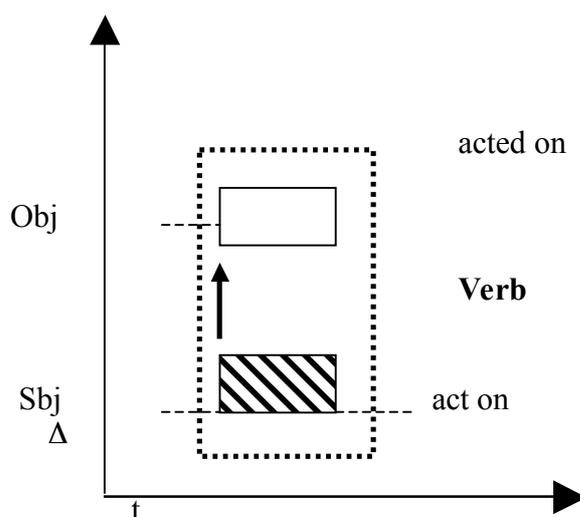
The white box in the direct object contour indicates the profile of the event of process and state. This is to allow the undirected activity construal as in Figure 9, where the ground does not undergo any changes and the event is construed as mere existence. We cannot specify whether the direct object goes back to the original state or changes into a new state. The labelling for the subevent of the two participants also needs to be vague reflecting the various occurrences in different construals of GA-

linking.

The representation accommodates an undirected activity construal as in Figures 9 and 17, the accomplishment construal as in Figure 10, the achievement construal as in Figure 20, and the directed activity construal as in Figure 21.

6.5.2. Differences between English and Japanese

The fact that Japanese favours the Path construction is made further apparent by reference to verbs of removing. The equivalent to the English antecedent oblique *of* construction is not frequent (there are only five verbs which I found with it). The difference in number is quite striking. English, according to Levin (1993), has fifty-two members that have this construction. (Even the existence of the construction in Japanese has not been discussed (Fukui et al. (1985))). Instead, most of the time, the figure is omitted so that the events are realised with GA-linking. In these cases, it is clear what is removed and the situation is construed as an uncovering event (as in peeling a potato in type 5), or as a clearing event (as in clearing the table in type 3), as an activity whose purpose is to cleanse the ground (as in washing in type 7) or as an activity of contact to clear the ground (as in sweeping in type 4).

As in the case of verbs of putting, we have found that Japanese uses compound verbs where the V2 is equivalent to English prepositions.

6.5.3. Asymmetries between verbs of putting and removing found in Japanese

Finally, I discuss semantic asymmetries between "putting" event and "removing" event that are reflected in differences in syntactic behaviour between verbs of putting and removing in Japanese. Dowty (1991: 592) points out the asymmetry of the physics

of space in discussing verbs of putting and removing; in an event of removing, the relation between the figure and the ground is one of correlation. Since the figure occupies a certain place (the ground) and the ground is occupied with the figure, removing the figure from the ground entails emptying the ground and emptying the ground entails removing the figure from it. On the other hand, in an event of putting, we can put the total amount of the figure in/on the ground without filling/covering it or apply the figure to the ground indefinitely after the ground is covered (such as paint on the wall). This difference is based on knowledge about the real world. Differences of this kind are further illuminated by the analysis I have undertaken in Chapter 5 and Chapter 6. Appendix H compares the two classes of verbs.

There are some correspondences between verbs of putting and verbs of removing such as in the case of figure or ground incorporation verbs, and compound verbs. Caused-spatial transfer with specified direction verbs of type 2 verbs or means compound 1 types can be cross-listed. In the table, corresponding categories from two verb classes are grouped together by thick black lines. **P** indicates verbs of putting and **R** indicates verbs of removing. P2, for example, refers to type 2 verbs of putting. P2 and R2 are corresponding verb classes and therefore grouped together. I also include the number of the members of each type though the list is not exhaustive.

P-verbs have L-linking and R-verbs have A-linking, but these two linking constructions correspond in having the figure in the accusative and the ground as oblique. G-linking is peculiar to R-verbs, and FA-linking is shared by the two classes. Likewise, I-linking and RA-linking correspond to one another in that the ground is accusative and the figure is oblique in both cases. The columns for GA-linking and GO-linking are shared. The property of P-verbs occurring with a source phrase and that of R-verbs occurring with a goal phrase are represented side by side in Appendix

H.

On the first page of Appendix H, P2 and R2 types are grouped together. Basically, verbs of these classes can be cross-listed since they can take goal phrases only or source phrases only and can appear with a path pattern as well. That is, verbs of the P2-2 type can appear as verbs of removing and verbs of the R2-2 as verbs of putting. However, as I discussed in the main text, some of them such as *dasu* 'take out' which tend to appear with the source phrase, are categorised as R2-1 type. R2-2 type verbs tend to occur with source phrases, so they are also categorised as verbs of removing. What is peculiar is that G-linking may only be acceptable (though not perfectly grammatical) between the 'source' ground and the figure and not between the 'goal' ground and the figure. It may be possible to say (6.28) *John took a boat in the shore out* (I put one question mark), but it is definitely ungrammatical to link the 'goal' ground and the figure, as the ungrammaticality of the following sentence shows.

(208)
    *John wa   kishi no   kobune o   ire-ta.
    John TOP shore GEN boat   ACC put.into
    *John put a boat in the shore in.

(208) is ungrammatical in the sense that *kishi* 'shore' cannot be interpreted as the place the boat is put into but its original place.

P13 and R14 correspond in that they are both ground incorporation verbs. However, there is a big contrast in their syntactic behaviour. P13 selects FA-type linking and R14 selects GA-type linking. This is because the first element of P13 verbs is a verb that takes L-linking (such as 'put into' and 'throw') while that of R14 is a verb that takes GA-linking ('wash'). Interestingly, I have not so far found ground incorporated verbs of putting whose first element is a GA-linking type verb (such as *huku.sha-suru* meaning 'cover.car-do' (cover car)) or ground incorporated verbs of

removing whose first element is an FA-linking type verb (such as *shuk.koku-suru*[16] meaning 'take out.country-do' (remove a person from a country)).

P14 and R15 correspond in that they are figure incorporation verbs which allow only FA type linkings, and P15 and R16 correspond as figure incorporated verbs that allow both FA-type and GA-type linkings. The difference is that the P-class takes GO-linking while the R-class does not. P15 and R16 also differ in their acceptance of FA-linking.

P16 and R17 are means compounds with specified direction. Basically, some verbs in these categories can be cross-listed. Some of them such as *~komu* 'put into' or *~dasu* 'take out', however, predominantly belong to either of the categories. Types P17 and R18 are both means compounds that take FA-type linking, and P18 and R19 are both means compounds that take GA-type linking. R18 allows FA-linking constructions while P17 does not. In the means compounds section (type 17 and 18 verbs of removing), we found some 'hybrid' compounds whose component verbs have opposed linking patterns such as with V1 taking GA-linking type linking and V2 taking FA-type linking. In verbs of putting, V1s mostly combine with V2s when the two have the same argument linking type. V1s may have different argument linking types from V2s in compound verbs of putting. Even in this case, however, V1s are limited to verbs which denote contact in some way (such as type 20-4 or type 20-6 in verbs of putting). It is rare to see means compounds of verbs of putting whose V1 is an I-linking type of verbs of putting and whose V2 is an L-linking type of verb (the only example in the data is *ooi-kabuseru* 'cover-put on'). On the other hand, verbs of removing include more of this hybrid type of means compound (*arai-otosu* 'wash-remove' and *damashi-toru* 'deceive-take').

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[16] Japanese has this verb but it is only used in an intransitive verb meaning 'go out of the country'.

The P-class and R-class verbs that take FA-type linking are P1, P3, P4, P5, P6, P7, P8, R1, R6, R8, R9, R10, R11, and R13. Comparing these types, there are more types and numbers of verbs that allow FA-linking in verbs of removing. Verbs of putting have only a limited number of verbs of scattering (such as *maku₃* 'scatter') and verbs with a specified configuration that take FA-linking. FA-linking in the latter is possible because verbs can focus on the configurational state of the figure only, without specifying where it is.

The verbs that take GA-type linking only are P9, P10, R7. In terms of syntactic linking patterns, they are almost equivalent (cf. Appendix H). The change of state verbs of *yogosu* 'dirty' and *kiyomeru* 'cleanse' correspond semantically; one is the event of making an entity not clean and the other is the event of making it clean. The two verbs are punctual (achievement). Taking the two opposite events of non-cleaning/cleaning in terms of 'putting dirt' and 'removing dirt', there is an interesting aspectual constrast. As *yogosu* 'dirty' refers to causing something to change from a clean to a non-clean state, one act of putting dirt is enough to make it dirty. On the other hand, *kiyomeru* 'cleanse', which refers to causing something to change from a non-clean to a clean state, requires all dirt to be removed from that entity. This difference is exemplified in the interpretation with *te-iru*. As achievement verbs, they need construals of events that get the activity reading with *te-iru*. *Yogosu* 'dirty' only allows an iterated achievement reading, since the first act of putting dirt completes an event. *Kiyomeru* 'cleanse' only allows the runup achievement reading, since the event is not completed till the last dirt on something is removed.

Finally, the following are the verbs that allow both FA and GA-type linking: P11, P12, R3, R4, R5, and R12. There are more types and numbers of verbs that allow both these linking types in verbs of removing than in verbs of putting.

Differences observed between verbs of putting and verbs of removing are summarised as follows:

(i) the presence of G-linking in removing
(ii) more acceptance of FA-linking in removing
(iii) more verbs that have alternative linkings in removing
(iv) more hybrid compounds in removing (GA type + FA type)
(v) much less RA-linking compared to I-linking
(vi) the presence of GO-linking in putting
(vii) difference in ground incorporation verbs

First of all, the togetherness of the figure and the ground, both in purely spatial terms and more abstract terms, in verbs of removing reflects most of the differences above. Self-evidently, the starting rest state of an event of removing and putting is different. For an event of removing, the figure and the ground are supposed to be together; they might be in a whole-part relation, a locational relation, or an identificational relation etc. On the other hand, in an event of putting, the figure and the ground are supposed to be separate. Because of the togetherness, G-linking is possible with verbs of removing. The higher acceptability of FA-linking in verbs of removing is also explained by the togetherness. Because the figure is supposed to be in spatial or abstract contact with the ground, it can be thought merely to exist in the world (togetherness with the world). That is, an act of removing without specifying a goal phrase can be interpreted as just the elimination or non-existence of the figure in this world. Actually, verbs of removing include verbs of elimination (type R1-1). However, verbs of putting do not include any 'creation' verbs as the figure's existence is already presupposed in verbs of putting. On the other hand, the putting class has the

393

type 7 verbs of specified configuration which focus on how the figure comes to relate spatially to the ground. Verbs of removing do not have this counterpart since the kind of spatial relation the figure is in relative to the ground before being removed is already presupposed/included in the rest state which verbs of removing do not profile. If one wants to express it, one has to use a periphrastic expression that refers to the configurational position of the figure in relation to the ground.

The semantic notion of togetherness also explains why there are more verbs that can occur with either FA-type linkings or GA-type linkings and more hybrid compound types in verbs of removing. As the figure and the ground are spatially or sometimes abstractly very close (they even comprise a same entity), an event of removing is in reality acting on the figure and the ground at the same time and therefore it is construed as either acting on the figure or on the ground. For example, in peeling the skin from a potato, one is acting on the skin and the potato which has the skin as its part and in sweeping dust on the floor, one is acting on the dust and the floor simultaneously. If one wants to take something (the figure) away from a person, one can act on that person (like deceiving) first, to get the figure. On the other hand, in situations denoted by verbs of putting, one has to act on the figure first. In the real world, it is impossible for an agent to act on the ground first to let the figure be located or moved to the ground. One cannot act on the wall, for example, to make paint be smeared there. That is, in verbs of removing, which participant the agent acts on first is very ambiguous because of the togetherness of the figure and the ground; the causal relation can be very blurred.

There is a further interesting contrast between putting and removing concerning togetherness. It is relatively easier to separate two things which are together rather than to put separate things together. For example, we can remove a skin from a potato

but we cannot put them back together again. Actually, there are more types of verbs of putting with reversible events than there are verbs of removing with them. We can see by comparing the Figures representing semantic structures. It is a lot more likely that we can separate again what we artificially or causally locate together than that we can put together again what we separate. We can put the vase in the living room and can take it away again, but we cannot remove weeds from the lawn and put them back again. The difficulty of "putting" things together is further illustrated in a more abstract relation of the figure and the ground. Verbs of removing include "possessional deprivation verbs" where the agent forcibly takes the possessum away from the possessor. Verbs of putting do not have these counterparts which refer to an event where the agent forcibly locates the figure onto the ground ('intended possessor'). We do not need any causal contribution from the "possessor" to deprive it of something, although, we need cooperation on his part if we want the 'intended' possessor (the ground) to have the 'intended' possessum (the figure). In this case, an event cannot be categorised as a putting event but a transfer of possession event because of the causal contribution of the ground.

The fact that the RA-linking construction is much rarer than I-linking is specific to Japanese, as the antecedent oblique *of* construction (equivalent to RA-linking) often appears in English. I would argue that this is because it is intuitively more difficult to construe a removing event as affecting the ground by using the figure than to construe a putting event as such based on the assumption that the figure is a kind of instrument or means to cause changes in the ground in both the RA-linking construction and the I-linking construction. It is easier to think of the figure as an instrument to be applied to the ground in verbs of putting than in verbs of removing because of the "togetherness" of the figure and the ground in the latter. For example, if we compare

filling a bathtub using water (by putting it in) and emptying a bathtub using water (by removing it), the latter is intuitively more strange. Japanese conventionally has a construction to express the former but not the latter.

Secondly, there is a different degree of focus on the goal and the source in spatial transfer. Theoretically, it is possible for both phrases to appear with types P2 and R2 (verbs with specified direction), with types P14 and R15 (figure incorporation 1), or with types P16 and R17 (means compound 1). As the number of these categories show, there are more in verbs of putting (especially, compare P14, R15 and P16, R17). Though they can be cross-listed, I have noticed that these verbs of the spatial transfer with specified direction types are more likely to choose the goal phrase over the source phrase (the exception is only *dasu* 'put out, take out'). I would say that it is because we naturally focus on the result state (the goal) as the result of transfer rather than the rest state (the source), which specifies the original state before the spatial transfer. This asymmetry may be related to the absence of ground incorporation verbs whose ground indicates a referential place from which the figure moves or is removed. Even the VN verbs whose first element is classified as a verb of removing such as *hou* 'release' in *hou.boku-suru* 'release.pasture-do' are linked with the 'goal' ground rather than the 'source' ground. Verbs that can occur with a path pattern generally are more likely to take the goal phrase than the source phrase.

Finally, the presence of GO-linking in verbs of putting may be explained by the different degree of affectedness. The affectedness the ground gets with spatial transfer verbs in being located with something like filling may be higher than when it is cleared of something. Therefore, it is possible that only the place marked as oblique can appear syntactically as the sole argument other than the subject in figure-incorporation verbs of putting. Another explanation may be that it is something to do

with the use of *ni*. This can be used for the object which is acted on, not unlike in the English conative construction as in 'chew at the bone'. Japanese uses *ni* for a participant to which English assigns accusative such as *kare ni au* (he OBL meet = 'meet him'), where it indicates a participant that the subject action is directed to (cf. § 4.4.1.2.1). On the other hand, *kara* 'from' does not have this use. That may be a reason GO-linking (with *ni*) is present in verbs of putting.

Thus, verbs of putting and removing, which can be thought of as semantic counterparts, do not behave exactly in the opposite way syntactically. This is because they reflect the way the world is, where an event of putting and removing in close investigation are not symmetrical in terms of 'togetherness', 'affectedness' or the tendency to focus on the 'result' goal.

7. CONCLUSION

In this thesis, verbal semantics have been represented in terms of the two important dimensions, aspect and argument structure, in the causal-aspectual model (Croft 2000), which has been applied to analyze verbs of putting and removing in Japanese.

The dimension of aspect is represented by Croft (2000) as a two-dimensional model, which has the time scale on the abscissa and the qualitative scale on the ordinate. The two dimensional model is motivated by the fact that a construal operation of a speaker may require adjustments on both scales as in the case of construals of events that are habitual.

Aspect is argued to have more types than the four presented by Vendler (1967). States, activities, accomplishments, and achievements are further classified into fourteen types according to possible aspectual contours which are represented in the two-dimensional aspectual model. The fourteen types are built up from a set of basic phase types (i-state, t-state, p-state, d-transition, r-transition, u-process, d-process). These fourteen types are considered to be universal aspectual types. Aspectual types are distinguished from aspectual classes. Aspectual classes are language-specific and divided in terms of their distributional behaviour with TA-constructions which are available in each language.

In Chapter 3, forty-eight situation types of Japanese predicates are classified into forty aspectual classes according to their behaviour in relation to the Present, the *Te-iru*, and the Past constructions. With the closer analysis of situation types of predicates that occur in these TA constructions, sometimes in combination with adverbials, the different senses of the three constructions are also revealed. In the event, the Present construction was shown to have four senses, the *Te-iru* construction

to have eight senses, and the Past construction to have eight senses. A single unified definition to cover the different senses of each construction has also been proposed briefly in Chapter 3. The next step would be to represent a single meaning of each construction as a schematic aspectual type in the two-dimensional representation. I leave this for future study.

Argument structure, which is the other dimension of verbal semantic structure, determines argument linking. It is argued in Croft (1990, 1991, 1993, 1994ab, 1995ab, 1998a, 1999a) to derive from the event structure, which is represented by the causal structure of events. Chapter 2 presented his causal structure model. He claims that the force-dynamic relationship between participants in events has a crucial role in determining argument linking. Participants which are ranked in the causal order are mapped into syntactic arguments via the linking rules. Croft also uses the notion of verbal profile to explain subtle semantic differences between variants of alternations (such as the locative variant and the *with* variant in the *spray/load* alternation). In the case of the *spray/load* alternation, for example, it is argued that since the *with* variant includes the ground in the verbal profile, the variant has the holistic interpretation.

In Chapter 4, I introduced the new verbal semantic representation of Croft (2000), which integrates causal structure and aspectual structure (the causal-aspectual model). In this new model, each participant in a situation has its own aspectual contour, and the subevents are causally ordered. The causal-aspectual model can specify the aspectual properties of each subevent a participant undergoes, as well as representing the causal structure which shows the force-dynamic relationship between participants that determines argument linking. Moreover, each subevent must be described specifically. The causal-aspectual model can articulate and describe events that verbs denote more clearly than the old model of the causal structure. The locative variant

and the *with* variant of *spray,* for example, are explained not only to have two different verbal profiles as the old causal analysis did, but also to have different subevents. Also, the verbal scale is associated with different participants in the two variants. All these differences now capture the fact that *spray* has two senses according to the different variants, an "emitting" sense in the locative variant and a "covering" sense in the *with* variant.

In Chapter 5 and Chapter 6, verbs of putting and removing are analysed in terms of the causal-aspectual model. Verbs are subcategorised into small classes according to their semantics and the linking patterns they take. For verbs of putting, five argument linking constructions are used: the L-linking, I-linking, FA-linking, GA-linking and the GO-linking constructions. For verbs of removing, five argument linking constructions are used, only two of which overlap with those for verbs of putting: the A-linking, G-linking, RA-linking, FA-linking and the GA-linking constructions. The semantic structures of verbs occurring with each construction have been represented in the causal-aspectual model. A single verb that occurs in different constructions is argued to have different semantic structures in the causal-aspectual model, reflecting different construals of the situation by speakers. After examining various occurrences of verbs with constructions, I proposed a semantic structure in the causal-aspectual model for each construction. These semantic structures for the constructions are schematic and abstract reflecting the nature of the constructional meanings, which are not as concrete and not as rich in encyclopaedic definitions as those of verbs.

Through analysing verbs of putting and removing in Japanese, some systematic differences between English and Japanese were found. Japanese predominantly favours the locative variant (the L-linking and A-linking constructions), which marks the figure as the direct object and the ground as the subsequent path oblique. This fact

is reflected by the number of Japanese verbs that take the *with*-variant and the antecedent *of* variant (I-linking and RA-linking in Japanese). The number is very small compared to that in English. Moreover, there are many fewer verbs that take the locative alternation in Japanese than there are in English. Even in some figure incorporation verbs, Japanese marks its single argument other than the subject, the ground, as oblique, which further illuminates the characteristic of the language favouring the locative type construction. Another notable difference is that Japanese frequently uses compound verbs for the caused-motion situations that English encodes as a verb plus a prepositional phrase. A path expression that is represented by an English preposition is introduced by a V2 component which denotes the caused-spatial transfer situation in Japanese. Various kinds of verbs can appear as V1 in Japanese just as English main verbs vary in the caused-motion construction. How V1 and V2 are combined into a compound is also shown in terms of the causal-aspectual model.

Finally, syntactic asymmetries between verbs of putting and removing such as the presence/absence of a certain construction have been discussed in terms of the differences between the semantic natures of events that the two verb classes denote.

The thesis presents and attempts to apply the causal-aspectual model (Croft 2000) to the Japanese language. However, this would be a monumental task; the dissertation has a much narrower scope. It has limited itself to examining in some detail the three TA constructions (the Present, the *Te-iru*, and the Past constructions), forty-eight situation types of predicates, the two classes of verbs (verbs of putting and removing) and the related linking constructions such as L-linking, A-linking, I-linking and RA-linking constructions. Further investigation is therefore appropriate in the following areas: (i) defining meanings of other TA constructions such as the container

adverbial, the durative adverbial, and the *Te-ita* (*Te-iru* plus Past) constructions in terms of aspectual representation, (ii) investigating more situation types of predicates in terms of their aspectual behaviour in relation to various TA constructions, and (iii) examining more verb classes with three arguments such as verbs of possessional transfer, verbs of combining and attaching, verbs of separating, verbs of contact by impact, verbs of sending and carrying, and *touch/poke* verbs in terms of what kind of linking constructions they take. Such investigation will be left to future research.

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APPENDIX A.   Senses of the constructions and situation types

1. Situation types that take 1I

[1-1Natural Kinds]

(1I) Sono ishi   wa   daiamondo da.
      that stone TOP diamond   DA
      That stone is a diamond.

[1-2 Ethnicity]

(1I) Kanojo wa   igirisujin da.
      she   TOP English   DA
      She is English.

[1-3 Biological Kinds]

(1I) Are wa   tokage da.
      that TOP lizard   DA
      That is a lizard.

[1-4 Physical Properties]

(1I) Kare wa   se   ga   takai.
      he   TOP height NOM tall
      He is tall.

[2-1 Existence]

(1I) Chikyuu ni-wa   mizu ga   aru.
      earth   in-TOP water NOM exist
      There is water on the earth.

[2-2 Necessity]

(1I) Sono shokubutsu ni-wa   juubunna eiyou   ga   iru$_2$.
      the   plant   to-TOP enough   nutrition NOM need/necessary
      The plant needs a lot of nutrition.

[2-3 Dispositions]

(1I) Jack wa   shinsetsu da.
      Jack TOP kind   DA
      Jack is kind.

[4 Physical States]

(1I) Sono mizuumi no   mizu wa   tsumetai.
      the   lake   GEN water TOP cold
      The water in the lake is cold.

[6 Relation 1]

(1I) Gengogaku wa   bunkengaku to-wa   kotonaru.
      Linguistics TOP philology   with-TOP differ
      Linguistics differs from philology.

[9 Perception]

(1I)
Kono basho kara wa Huji-san ga mieru.
this place from TOP Mt.Fuji NOM be.visible
Mt.Fuji is visible from this place.

[11 Cognition 2]

(1I)
Watashi wa kami o shinjiru.
I TOP God ACC believe
I believe in God.

[15 Attitudes]

(1I)
Kare wa chottoshita koto de sugu hinekureru.
he TOP trivial thing with easily become.warped
He gets warped easily with trivial things.

[17 Change of Physical Properties]

(1I)
Kono keito no uwagi wa kantanni chijimu.
this wool GEN jacket TOP easily shrink
This woolen jacket shrinks easily.

[18 Blooming]

(1I)
Sono hana wa umibe ni saku.
the flower TOP seaside at bloom
The flower blooms at the seaside.

[20 Open/Close]

(1I)
Sono mesu wa kantanni kanbu o hiraku.
the surgical.knife TOP easily diseased.part ACC open
The surgical knife opens diseased parts easily.

[21-1 Light Emission]

(1I)
Sono dentou wa sukoshi no enerugi de hikaru.
the light TOP little GEN energy with shine
The light shines with little energy.

[21-2 Sound Emission]

(1I)
Sono tori wa totemo utsukushiku naku.
the bird TOP very beautifully cry
The bird cries/sings very beautifully.

[24 Manner of Motion 1]

(1I)
Taro wa totemo hayaku hashiru.
Taro TOP very fast run
Taro runs very fast.

[25 Manner of Motion 2]

(1I)
Hanako wa totemo jouzuni oyogu.
Hanako TOP very well swim
Hanako swims very well.

[26 Motion/Movement]

(1I)
Sono omocha wa denchi de ugoku.
the toy TOP battery with move
The toy moves with a battery.

[27 Performance]

(1I)
Markus wa warutsu o jouzuni odoru.
Markus TOP waltz ACC well dance
Markus dances the waltz very well.

[28 Create Mark/Defect]

(1I)
Uchi no neko wa tsume de nandemo hikkaku.
home GEN cat TOP claw with anything scratch
Our cat scratches anything with its claws.

[29 Consumption]

(1I)
Watashi wa tamago o taberu.
I TOP egg ACC eat
I eat eggs. (I am not allergic.)

[31 Creation]

(1I)
Haha wa jouzuni doresu o tsukuru.
mother TOP well dress ACC make
My mother makes dresses very well.

[32 Dismantle]

(1I)
Sono burudoozaa wa tatemono o kantanni torikowasu.
the bulldozer TOP building ACC easily dismantle
The bulldozer dismantles building easily.

[33 Dyeing and Shaving]

(1I)
Kanojo wa jouzuni kami o someru.
she TOP well hair ACC dye
She dyes her hair very well.

[34 Dressing]

(1I)
Jacqui wa kimono o jouzuni kiru.
Jacqui TOP Japanese.dress ACC well dress
Jacqui puts on Japanese dress very well.

[36 Fracture/Breaking (intra)]

(1I)
Kono mado wa chottoshita shougeki de kantanni wareru.
this window TOP small impact with easily break
This window breaks easily with a small impact.

[37 Attachment]

(1I)
Sono teepu wa kantanni te ni kuttsuku.
the tape TOP easily hand to stick
The tape easily sticks to hands.

[38 Killing]

(1I)   Sono misairu wa   100man-nin   demo korosu.
that   missile TOP 100.ten.thousand-CLSS even kill
The missile kills even one million people.

2. Situation types that take 1T

[2-1 Existence]

(1T)   Sono hon ga   tsukue no   ue   ni aru.
the   book NOM desk   GEN surface at be
The book is on the desk.

[2-2 Necessity]

(1T)   Watashi ni-wa   ima kane   ga iru_2
I   to-TOP now money NOM need/necessary
I need money now.

[2-3 Dispositions]

(1T)   Jack wa   kyou wa   shinsetsu da.
Jack TOP today TOP kind   DA
Jack is kind today.

[3 Social Role]

(1T)   John wa   shachou da.
John TOP president DA
John is president.

[4 Physical States]

(1T)   Sono mizuumi no   mizu wa   ima wa   tsumetai.
the   lake   GEN water TOP now TOP cold
The water in the lake is cold now.

[5 Bodily States]

(1T)   Kare wa   byouki da.
he   TOP ill   DA.
He is ill.

[9 Perception]

(1T)   Kyou wa   mezurashiku Huji-san ga   mieru.
today TOP unusually   Mt.Fuji NOM be.visible
Mt.Fuji is visible today, which rarely happens.

[11 Cognition 2]

(1T)   Watashi wa   kyou dake kami o   shinjiru.
I   TOP today only God ACC believe
I believe in God only today.

3. Situation types that take 1H

[2-1 Existence]

(1H)
John wa   kanojo no   iru tokoro ni-wa   itsumo iru.
John TOP she   GEN be place   at-TOP always be
John is always there wherever she is.

[2-2 Necessity]

(1H)
Kare ni-wa   itsumo kane   ga   iru$_2$
he   to-TOP always money NOM   need/necessary
He always needs money.

[2-3 Dispositions]

(1H)
Jack wa   tanomigoto ga   aru toki   dake shinsetsu da.
Jack TOP favor   NOM be when only kind   DA
Jack is kind only when he receives a favour.

[4 Physical States]

(1H)
Sono mizuumi no   mizu wa   maitoshi   nigatsu   ni-wa   tsumetai.
the   lake   GEN water TOP every.year February in-TOP cold
The water of the lake is cold every February.

[5 Bodily States]

(1H)
Kare wa   huyu   ni-wa   kimatte byouki da.
he   TOP winter in-TOP always ill   DA
He is always ill in winter.

[8 Posture 2]

(1H)
Watashi wa   densha no   naka   de yoku suwaru.
I   TOP train   GEN inside in often sit
I often take a seat in the train.

[9 Perception]

(1H)
Hare   no hi wa   itsumo koko kara Huji-san ga   mieru.
fine.weather GEN day TOP always here from Mt.Fuji   NOM be.visible
Mt.Fuji is always visible here when it is fine.

[10 Cognition 1]

(1H)
Taro wa   itsumo hito   no   kokoro o   yoku rikaisuru.
Taro TOP always person GEN heart   ACC well understand
Taro always understands people's feelings well.

[11 Cognition 2]

(1H)
Watashi wa   uranai   o   ii   toki   dake shinjiru.
I   TOP fortune.telling ACC good when only believe
I believe fortune telling only when it is good.

[12 Emotional Activity]

(1H)
Janet wa doubutsu o miru to yorokobu.
Janet TOP animal ACC see when rejoice
Janet gets happy when she sees animals.

[13 Sleeping]

(1H)
Chichi wa maiban 11ji ni nemuru.
father TOP every.night 11o'clock at sleep
My father goes to bed at 11 o'clock every night.

[14 Perceptual Activity]

(1H)
Chichi wa maiasa terebi no nyuusu o miru.
father TOP every.morning TV GEN news ACC watch
My father watches the news on TV every morning.

[15 Attitudes]

(1H)
Kare wa shocchuu hinekureru.
he TOP always get.warped
He always gets warped.

[16 Change of Weight]

(1H)
Watashi wa maitoshi natsu ni hutoru.
I TOP every.year summer in gain.weight
I gain weight every summer.

[17 Change of Physical Properties]

(1H)
Kono keito no uwagi wa sentaku-suru tabi ni chijimu.
this wool GEN jacket TOP wash time at shrink
This woolen jacket shrinks every time I wash it.

[18 Blooming]

(1H)
Maitoshi gogatsu ni niwa ni bara no hana ga saku.
every.year May in garden at rose GEN flower NOM bloom
Roses bloom in our garden every May.

[19 Directed Motion]

(1H)
Sono inu wa dareka kuru to sugu koya ni hairu
the dog TOP somebody come when quickly kennel ALL go.into
The dog goes into its kennel quickly when a stranger comes.

[20 Open/Close]

(1H)
Sono mise wa maiasa 8ji ni hiraku.
the shop TOP every.morning 8o'clock at open
The shop opens at 8 every morning.

[21-1 Light Emission]

(1H)
Sono dentou wa maiban 6ji ni hikaru.
the light TOP every.night 6o'clock at shine
The light shines at 6 o'clock every night.

[21-2 Sound Emission]

(1H)
Sono tori wa asa   ni kimatte naku.
the   bird TOP morning at always   cry
The bird cries/sings every morning.

[22-1 Contact]

(1H)
Jack wa   yoku jibun no   seito o   tataku.
Jack TOP often own GEN student ACC hit
Jack often hits his students.

[22-2 Bodily Motion]

(1H)
Mary wa   wakareru toki   itsumo John ni te   o   huru.
Mary TOP separate when always John to hand ACC wave
Mary always waves to John when she says goodbye to him.

[23 Touching]

(1H)
Nina wa   neko o   miru to   sugu   te   o   hureru.
Nina TOP cat ACC see when quickly hand ACC touch
Nina touches a cat quickly with her hand whenever she sees one.

[24 Manner of Motion 1]

(1H)
Taro wa   maiasa   kouen o   hashiru.
Taro TOP every.morning park   ACC run
Taro runs in the park every morning.

[25 Manner of Motion 2]

(1H)
Hanako wa   maiasa   2kilo   o   oyogu.
Hanako TOP every.morning 2kilometers ACC swim
Hanako swims 2 kilometres every morning.

[26 Motion/Movement]

(1H)
Sono omocha wa   shindou ga   aru tabi ni ugoku.
the   toy   TOP shock   NOM occur time at move
The toy moves every time there is a shock.

[27 Performance]

(1H)
Markus wa   maishuu   kayoubi warutsu o   odoru.
Markus TOP every.week Tuesday waltz   ACC dance
Markus dances the waltz every Tuesday.

[28 Create Mark/Defect]

(1H)
Watashi wa   yoku juuyouna shorui   o   ayamatte yaburu.
I   TOP often important document ACC mistaking tear.up
I often tear up important documents by mistake.

[29 Consumption]

(1H)
Watashi wa   maiasa   gohan o   taberu.
I   TOP every.morning.rice ACC   eat
I eat rice every morning.

[30 Covering]

(1H)
Hazukashigariya no kanojo wa itsumo te de kao o oou.
shy.person GEN she TOP always hand with face ACC cover
She, as a shy person, always covers her face with her hands.

[31 Creation]

(1H)
Haha wa ikkagestsu ni ic-chaku doresu o tsukuru.
mother TOP one.month at one-CLSS dress ACC make
My mother makes one dress per month.

[32 Dismantle]

(1H)
Sono kodomo wa tsuki ni ichido wa omocha o kowasu.
the child TOP month in once TOP toy ACC destroy
The child destroys his toys once a month.

[33 Dyeing and Shaving]

(1H)
Kanojo wa maitsuki kami o someru.
she TOP every.month hair ACC dye
She dyes her hair every month.

[34 Dressing]

(1H)
Jacqui wa maitoshi oshougatsu ni kimono o kiru.
Jacqui TOP every.year new.year's.day on Jap.dress ACC wear
Jacqui wears Japanese dress every New Year's Day.

[37 Attachment]

(1H)
Sono teepu wa atatamaru to te ni kuttsuku.
the tape TOP get.warm when hand to stick
The tape sticks to hands when it is warm.

[38 Killing]

(1H)
Sono kakkazan wa maitoshi ooku no hito o korosu.
that active.volcano TOP every.year many GEN people ACC kill
That active volcano kills many people every year.

[39 Winning]

(1H)
Mike wa itsumo daijina shiai ni makeru.
Mike TOP always important game OJCT lose
Mike always loses important games.

4. Situation types that take 1*

[7-1 Relation 2]

[7-2 Posture 1]

[35 Dying]

[40 Discovery]

5. Situation types that take 2U

[12 Emotional Activity]

(2U)
Haha   wa   watashi no   seikou   o   yorokon-de-iru.
mother TOP I   GEN success ACC   rejoice-TE-IRU
My mother is happy with my success.

[13 Sleeping]

(2U)
Chichi wa   ima shizukani nemut-te-iru.
father TOP   now quietly   sleep-TE-IRU
My father is sleeping now.

[14 Perceptual Activity]

(2U)
Chichi wa   ima terebi no   nyuusu o   mi-te-iru.
father TOP   now TV   GEN   news   ACC watch-TE-IRU
My father is watching news on TV now.

[21-1 Light Emission]

(2U)
Sono dentou wa   chikachika hikat-te-iru.
the   light   TOP ONMP2   shine-TE-IRU
The light is flashing.

[21-2 Sound Emission]

(2U)
Nezumi ga   chuchu   nai-te-iru.
mouse   NOM   ONMP2   cry-TE-IRU
The mouse is squeaking.

[22-1 Contact]

(2U)
Jack ga   mado   o   tatai-te-iru.
Jack NOM   window ACC   knock-TE-IRU
Jack is knocking at the window.

[22-2 Bodily Motion]

(2U)
Mary wa   John ni te   o   hut-te-iru.
Mary TOP   John to hand ACC   wave-TE-IRU
Mary is waving her hand to John.

[23 Touching]

(2U)
Nina wa atarashii garasu ni petapeta te o hure-te-iru.
Nina TOP new glass to ONMP2 hand ACC touch-TE-IRU
Nina is repeatedly touching the new glass.

[24 Manner of Motion 1]

(2U)
Taro wa ima hashit-te-iru.
Taro TOP now run-TE-IRU
Taro is running now.

[25 Manner of Motion 2]

(2U)
Hanako wa ima oyoi-de-iru.
Hanako TOP now swim-TE-IRU
Hanako is swimming now.

[26 Motion/Movement]

(2U)
Jishin de tsukue ga ugoi-te-iru!!
earthquake with desk NOM move-TE-IRU
The desk is moving because of the earthquake!!

[27 Performance]

(2U)
Jacqui wa ima utat-te-iru.
Jacqui TOP now sing-TE-IRU
Jacqui is singing now.

[28 Create Mark/Defect]

(2U)
Kanojo wa sono tegami o biribiri yabui-te-iru.
she TOP the letter ACC ONMP2 tear-TE-IRU
She is tearing up the letter. (iterated tearing)

6. Situation types that take 2D

[14 Perceptual Activity]

(2D)
Watashi wa sono bideo o sukoshizutsu mi-te-iru.
I TOP the video ACC little.by.little watch-TE-IRU
I am watching the video little by little.

[15 Attitudes]

(2D)
Kare wa masumasu hinekure-te-iru.
he TOP more.and.more get.warped-TE-IRU
He is getting more and more warped.

[16 Change of Weight]

(2D)
Mary wa sukoshizutsu hutot-te-iru.
Mary TOP little.by.little get.fat-TE-IRU
Mary is getting fatter little by little.

[17 Change of Physical Properties]

(2D)
Suupu ga sukoshizutsu atatamat-te-iru.
soup NOM little.by.little get.warm-TE-IRU
The soup is getting warm.

[20 Open/Close]

(2D)
Sono tsubomi wa sukoshizutsu hirai-te-iru.
the bud TOP little.by.little open-TE-IRU
The bud is opening little by little.

[26 Motion/Movement]

(2D)
Jishin de tsukue ga sukoshizutsu minami ni ugoi-te-iru.
earthquake with desk NOM little.by.little south to move-TE-IRU
The desk is moving to the south because of the earthquake.

[27 Performance]

(2D)
Jacqui wa ima Corrs no shinkyoku o utat-te-iru.
Jacqui TOP now Corrs GEN new.song ACC sing-TE-IRU
Jacqui is singing Corrs' new song now.

[28 Create Mark/Defect]

(2D)
Kanojo wa sono tegami o yabui-te-iru.
she TOP the letter ACC tear-TE-IRU
She is tearing the letter. (One tearing taking time)

[29 Consumption]

(2D)
Joel wa yuushoku no pasuta o tabe-te-iru.
Joel TOP dinner GEN pasta ACC eat-TE-IRU
Joel is eating the pasta for his dinner.

[30 Covering]

(2D)
Chichi ga sukoshizutsu kuruma o shiito de oot-te-iru.
father NOM little.by.little car ACC sheet with cover-TE-IRU
My father is covering his car with sheet little by little.

[31 Creation]

(2D)
Haha wa watashi no doresu o tsukut-te-iru.
mother TOP I GEN dress ACC make-TE-IRU
My mother is making a dress for me.

[32 Dismantle]

(2D)
Sono burudoozaa wa kyuu kousha o torikowashi-te-iru.
the bulldozer TOP old schoolhouse ACC dismantle-TE-IRU
The bulldozer is dismantling the old schoolhouse.

[33 Dyeing and Shaving]

(2D)
Kanojo wa {sukoshizutsu} kami o some-te-iru.
she TOP {little.by.little} hair ACC dye-TE-IRU
She is dying her hair little by little.

420

7. Situation types that take 2T

[8 Posture 2]

(2T)
Steve wa   asoko ni tat-te-iru.
Steve TOP there at stand-TE-IRU
Steve is standing over there.

[9 Perception]

(2T)
Koko kara Huji-san ga   mie-te-iru!!
here from Mt.Fuji NOM be.visible-TE-IRU
I can see Mt. Fuji from here!!

[11 Cognition 2]

(2T)
Watashi wa   kami o   shinji-te-iru.
I   TOP God ACC believe-TE-IRU
I believe in God.

[15 Attitudes]

(2T)
Kanojo wa   kyou wa   mezurashiku sumashi-te-iru.
she   TOP today TOP unusually   put.on.airs-TE-IRU
She puts on airs today, which is rather unusual for her.

[16 Change of Weight]

(2T)
Mary wa   mezurashiku ima hutot-te-iru.
Mary TOP unusually   now become.fat-TE-IRU
Mary is fat now, which is rare.

[17 Change of Physical Properties]

(2T)
Suupu ga   atatamat-te-iru.
soup   NOM get.warm-TE-IRU
The soup is warm.

[18 Blooming]

(2T)
Ookina bara no   hana ga   ichi-rin   niwa ni sai-te-iru.
big   rose GEN flower NOM one-CLSS garden in bloom-TE-IRU
The one big rose is in bloom in our garden.

[19 Directed Motion]

(2T)
John wa   jibun no   koya ni   hait-te-iru.
John TOP own GEN kennel ALL go.into-PAST
John is in his kennel (as a result of going there).

[20 Open/Close]

(2T)
Kare wa   ashi o   hirai-te-iru.
he   TOP leg ACC open-TE-IRU
He left his legs open.

[23 Touching]

(2T)
Ashi ga   puuru   no   soko   ni hure-te-iru.
foot NOM swimming.pool GEN bottom at touch-TE-IRU
My feet touch the bottom of the swimming pool.

[26 Motion/Movement]

(2T)
Kinou   no   jishin   de   tsukue ga   sukoshi ugoi-te-iru.
yesterday GEN earthquake with desk   NOM a.little move-TE-IRU
The desk has moved a little because of yesterday's earthquake.

[30 Covering]

(2T)
Kiri ga   machi o   sukkari   oot-te-iru.
fog NOM city   ACC completely cover-TE-IRU
The fog completely covers the city.

[33 Dyeing and Shaving]

(2T)
Kanojo wa   kami o   {kiiroku} some-te-iru.
she   TOP hair ACC {yellow}   dye-TE-IRU
She has dyed her hair yellow. (Now she has the yellow hair.)

[34 Dressing]

(2T)
Jacqui wa   akai doresu o   ki-te-iru.
Jacqui TOP red dress   ACC wear-TE-IRU
Jacqui is wearing a red dress.

[37 Attachment]

(2T)
Doro ga   zubon   ni tsui-te-iru.
dirt NOM trousers to stick-TE-IRU
The dirt is sticking to the trousers.

8. Situation types that take 2I

[6 Relation 1]

(2I)
Gengogaku wa   bunkengaku to-wa   kotonat-te-iru.
Linguistics TOP philology   with-TOP differ-TE-IRU
Linguistics differs from philology.

[7-1 Relation 2]

(2I)
Kare no   ronbun wa   kono ronbun yori sugure-te-iru.
he   GEN article TOP this article than excel-TE-IRU
His dissertation is superior to this dissertation.

[7-2 Posture 1]

(2I)
Huji-san ga   me no   mae ni sobie-te-iru.
Mt.Fuji NOM eye GEN front at tower-TE-IRU
Mt. Fuji towers high in front of us.

[10 Cognition 1]

(2I)
Taro wa   gengogaku o   yoku rikaishi-te-iru.
Taro TOP Linguistics ACC well understand-TE-IRU
Taro understands Linguistic very well.

[15 Attitudes]

(2I)
Kare wa   tottemo hinekure-te-iru.
he   TOP very   become.warped-TE-IRU
He has such a warped disposition.

[16 Change of Weight]

(2I)
Mary wa   hutot-te-iru.
Mary TOP become.fat-TE-IRU
Mary is fat.

[24 Manner of Motion 1]

(2I)
Kousokudouro ga   machi no   chuushin o   hashi-te-iru.
highway   NOM city GEN center   ACC run-TE-IRU
The highway runs through the centre of the city.

[30 Covering]

(2I)
Midori no   kigi ga   sono kuni o   oot-te-iru.
green GEN trees NOM the   country ACC cover-TE-IRU
Green trees cover the country.

[35 Dying]

(2I)
Neko ga   michibata de shin-de-iru.
cat   NOM roadside   on die-TE-IRU
The cat is dead on the roadside.

[36 Fracture/Breaking (intra)]

(2I)
Heya no   mado ga   ware-te-iru!
room GEN window NOM break-TE-IRU
The window in the room is broken!

9. Situation types that take 2R

[34 Dressing]

(2R)
Jacqui wa   ima tonari no   heya de kimono o   ki-te-iru.
Jacqui TOP now next   GEN room at Jap.dress ACC put.on-TE-IRU
Jacqui is putting on her Japanese dress in the next room.

[38 Killing]

(2R)
Haha wa   kanshasai   ni shichimencho o   kososhi-te-iru.
mother TOP thanksgiving.day for turkey   ACC kill-TE-IRU
Mother is killing a turkey for Thanksgiving Day.

[39 Winning]

(2R)
Nihon chiimu wa   kankoku chiimu ni   genzainotokoro kat-te-iru.
Japan team   TOP Korea   team   against at.this.moment win-TE-IRU
The Japanese team is leading the Korean team at this moment.

10. Situation types that take 2H

[11 Cognition 2]

(2H)
Watashi wa   uranai   o   ii   toki   dake shinji-te-iru.
I   TOP fortune.telling ACC good   when   only believe
I believe fortune telling only when it is good.

[13 Sleeping]

(2H)
Chichi wa   maiban   11ji   ni nemut-te-iru.
father TOP every.night 11o'clock at sleep-TE-IRU
My father goes to bed at 11 o'clock every night.

[14 Perceptual Activity]

(2H)
Chichi wa   maiasa   terebi no   nyuusu o   mi-te-iru.
father TOP every.moring TV   GEN news   ACC watch-TE-IRU
My father watches news on TV every morning.

[15 Attitudes]

(2H)
Kanojo wa   itsumo John no   mae de sumashi-te-iru.
she   TOP always John GEN front in put.on.airs-TE-IRU
She always puts on airs in front of John.

[19 Directed Motion]

(2H)
Uchi no   inu wa   maitsuki   huro ni   hait-te-iru
home GEN dog TOP every.month bath ALL go.into-TE-IRU
Our dog gets into the bath every month.

[20 Open/Close]

(2H)
Haha   wa   maiasa   mise o   8ji   ni hirai-te-iru.
mother TOP every.morning shop ACC 8o'clock at open-TE-IRU
My mother opens the shop at 8 o'clock every morning.

[21-1 Light Emission]

(2H)
Sono dentou wa   maiban   chikachika hikat-te-iru.
the   light   TOP every.night ONMP2   shine-TE-IRU
The light flashes every night.

[21-2 Sound Emission]

(2H)
?Sono tori wa   maiasa   nai-te-iru.
 the   bird TOP every.morning cry-TE-IRU
The bird cries/sings every morning.

[22-1 Contact]

(2H)

Jack wa maiban chichi no kata o tatai-te-iru.
Jack TOP every.night father GEN shoulder ACC pat-TE-IRU
Jack pats his father on his shoulder every night.

[22-2 Bodily Motion]

(2H)

Mary wa jugyouchuu itsumo John ni te o hut-te-iru.
Mary TOP in.the.class always John to hand ACC wave-TE-IRU
Mary always waves to John during the class.

[23 Touching]

(2H)

Nina wa maiasa neko no ke ni te o hure-te-iru.
Nina TOP every.morning cat GEN fur to hand ACC touch-TE-IRU
Nina touches the cat's fur with her hand every morning.

[24 Manner of Motion 1]

(2H)

Taro wa maiasa kouen o hashit-te-iru.
Taro TOP every.morning park ACC run-TE-IRU
Taro runs in the park every morning.

[25 Manner of Motion 2]

(2H)

Hanako wa maiasa 2kilo o oyoi-de-iru.
Hanako TOP every.morning 2kilometers ACC swim-TE-IRU
Hanako swims 2 kilometres every morning.

[27 Performance]

(2H)

Markus wa maishuu kayoubi warutsu o odot-te-iru.
Markus TOP every.week Tuesday waltz ACC dance-TE-IRU
Markus dances the waltz every Tuesday.

[28 Create Mark/Defect]

(2H)

Kaisha de-wa maishuu iranai shorui o yabui-te-iru.
company in-TOP every.week unnecessary document ACC tear-TE-IRU
We tear up unnecessary documents in the company every week.

[29 Consumption]

(2H)

Watashi wa maiasa gohan o tabe-te-iru.
I TOP every.morning rice ACC eat-TE-IRU
I eat rice every morning.

[30 Covering]

(2H)

Chichi wa maiban kuruma o shiito de oot-te-iru.
father TOP every.night car ACC sheet with cover-TE-IRU
My father covers his car with a sheet every night.

[31 Creation]

(2H)

Haha wa ikkagetsu ni ic-chaku doresu o tsukut-te-iru.
mother TOP one.month at one-CLSS dress ACC make-TE-IRU
My mother makes one dress per month.

[32 Dismantle]

(2H)
Sono kodomo wa maitsuki omocha o kowashi-te-iru.
the child TOP every.month toy ACC destroy-TE-IRU
The child destroys his toy every month.

[33 Dyeing and Shaving]

(2H)
Kanojo wa maitsuki kami o some-te-iru.
she TOP every.month hair ACC dye-TE-IRU
She dyes her hair every month.

[34 Dressing]

(2H)
Mary wa maiasa jibun de huku o ki-te-iru.
Mary TOP every.morning oneself with dress ACC put.on-TE-IRU
Mary's child dresses herself every morning.

[39 Winning]

(2H)
Nihon chiimu wa maitoshi kankoku chiimu ni kat-te-iru.
Japan team TOP every.year Korea team OJCT win-TE-IRU
The Japanese team wins against the Korean team every year.

11. Situation types that take 2F

[8 Posture 2]

(2F)
Steve wa sono tokubetsu seki ni gokai suwat-te-iru.
Steve TOP the special seat at five.times sit-TE-IRU
Steve has taken that special seat five times.

[9 Perception]

(2F)
Kono basho kara 1920nen ni ichido Huji-san ga mie-te-iru.
this place from 1920year in once Mt.Fuji NOM be.visible-TE-IRU
Mt. Fuji has been seen from here once, in 1920.

[10 Cognition 1]

(2F)
?Taro wa kako ni ichido sono suuushiki o rikaishi-te-iru.
Taro TOP past in once the formula ACC understand-TE-IRU
Taro has understood the formula once in the past.

[11 Cognition 2]

(2F)
?Chichi wa ichido dake isuramukyou o shinji-te-iru.
father TOP once only Muslim ACC believe-TE-IRU
My father has believed in the Muslim religion only once.

[12 Emotional Activity]

(2F)
Chichi wa ichido dake watashi no seikou o yorokon-de-iru.
father TOP once only I GEN success ACC rejoice-TE-IRU
My father has rejoiced over my success only once (in the past).

[13 Sleeping]

(2F)
Chichi wa   kako ni ichido sabaku de nemut-te-iru.
father TOP past in once   desert in sleep-TE-IRU
My father has slept in the desert once in the past.

[14 Perceptual Activity]

(2F)
Chichi wa   kako ni ichido yurei o   mi-te-iru.
father TOP past in once   ghost ACC see-TE-IRU
My father has seen a ghost once in the past.

[15 Attitudes]

(2F)
?Kare wa   kako ni ichido dake hinekure-te-iru.
 he   TOP past in once   only get.warped-TE-IRU
He has got warped only once in the past.

[16 Change of Weight]

(2F)
?Mary wa   kako ni ichido hut-te-iru.
 Mary TOP past in once   get.fat-TE-IRU
 Mary has been fat once in the past.

[17 Change of Physical Properties]

(2F)
Sono uwagi wa   izenni ichido chijin-de-iru.
that jacket TOP before once   shrink-TE-IRU
That jacket has been shrunk once before.

[18 Blooming]

(2F)
Niwa no   bara no   hana wa   kyonen sai-te-iru.
garden GEN rose GEN flower TOP last.year bloom-TE-IRU
The rose in the garden bloomed last year.

[19 Directed Motion]

(2F)
Yougisha wa   5ji   ni sono mise ni   hait-te-iru.
suspect   TOP 5o'clock at that shop ALL go.into-TE-IRU
The suspect went into the shop at 5 o'clock.

[20 Open/Close]

(2F)
Sono kaisha   wa   ichido Tokyo ni shiten   o   hirai-te-iru.
the   company TOP once   Tokyo in branch.office ACC open-TE-IRU
The company opened its branch in Tokyo once.

[21-1 Light Emission]

(2F)
Sono dentou wa   kako ni ichido dake chikat-to hikat-te-iru.
the   light   TOP past in once   only ONMP1 shine-TE-IRU
The light has flashed once in the past.

[21-2 Sound Emission]

(2F)
Sono tokushuna tori wa   kako ni ichido dake nai-te-iru.
the   special   bird TOP past in once   only cry-TE-IRU
The rare species of birds has sung only once in the past.

[22-1 Contact]

(2F)
Jack wa   kako ni kodomo o   hidoku tatai-te-iru.
Jack TOP past in child   ACC badly   hit-TE-IRU
Jack has hit his child badly in the past.

[22-2 Bodily Motion]

(2F)
Mary wa   kako ni ichido dake John ni te   o   hut-te-iru.
Mary TOP past in once   only John to hand ACC wave-TE-IRU
Mary has waved to John once in the past.

[23 Touching]

(2F)
John wa   kako ni ichido Mary no   kami ni te   o   hure-te-iru.
John TOP past in once   Mary GEN hair at hand ACC touch-TE-IRU
John has touched Mary's hair once in the past.

[24 Manner of Motion 1]

(2F)
Chichi wa   ichido Honolulu marason de hashit-te-iru.
father TOP once   Honolulu marathon in run-TE-IRU
Father has run once in the Honolulu marathon.

[25 Manner of Motion 2]

(2F)
Haha   wa   ichido sekai taikai   de oyoi-de-iru.
mother TOP once   world competition in swim-TE-IRU
My mother has swum once in the world competition.

[26 Motion/Movement]

(2F)
Sono kekkan   sha wa   ichido dake ikkagestsu mae ni ugoi-te-iru.
the   defecitve car TOP once   only one.month ago at move-TE-IRU
The defective car has moved only once, one month ago.

[27 Performance]

(2F)
Haha   wa   1960nen ni Blackpool de odot-te-iru.
mother TOP 1960year in Blackpool in dance-TE-IRU
My mother danced in Blackpool in 1960.

[28 Create Mark/Defect]

(2F)
Kanojo wa   ichido sono tegami o   birit-to   yabui-te-iru.
she   TOP once   the   letter   ACC ONMP1 tear-TE-IRU
She has torn the letter once.

[29 Consumption]

(2F)
John wa   kako ni ichido hebi o   tabe-te-iru.
John TOP past in once   snake ACC eat-TE-IRU
John ate a snake once in the past.

[30 Covering]

(2F)
Hukai kiri ga   kako ni ichido sono machi o   oot-te-iru.
deep   fog NOM past in once   the   city   ACC cover-TE-IRU
The deep fog covered the city once in the past.

[31 Creation]

(2F)　Haha　　wa　kako　ni　ichido　dake　kimono　　　　o　　　tsukut-te-iru.
mother　TOP　past　in　once　　only　Japanese.dress　ACC　make-TE-IRU
My mother made a Japanese dress once in the past.

[32 Dismantle]

(2F)　Sono daigaku　　wa　kako　ni　honsha　　　　o　　　torikowashi-te-iru.
the　university TOP　past　in　main.building　ACC　dismantle-TE-IRU
The university has dismantled its main building in the past.

[33 Dyeing and Shaving]

(2F)　Kanojo　wa　　kako　ni　ichido　kami　o　　　some-te-iru.
she　　　TOP　past　in　once　　hair　　ACC　dye-TE-IRU
She has dyed her hair once in the past.

[34 Dressing]

(2F)　Mary　wa　　kako　ni　ichido　dake　kimono　　o　　ki-te-iru.
Mary　TOP　past　in　once　　only　Jap.dress　ACC　wear-TE-IRU
Mary has worn a Japanese dress once in the past.

[35 Dying]

(2F)　Chichi　wa　　1990nen　ni　nakunat-te-iru.
father　　TOP　1990year　in　die-TE-IRU
My father has been dead since 1990.

[36 Fracture/Breaking (intra)]

(2F)　Sono tsubo wa　　kyonen　　ichido　ware-te-iru.
the　vase　TOP　last.year　once　　break-TE-IRU
The vase was broken once last year.

[37 Attachment]

(2F)　Sono kimono　　　　ni-wa　ichido gamu　　　　ga　　kuttsui-te-iru.
the　Japanese.dress　to-TOP　once　　chewing.gum　NOM　stick-TE-IRU
Chewing gum has stuck to the Japanese dress once.

[38 Killing]

(2F)　John wa　　kako　ni　ichido　hito　o　　　koroshi-te-iru.
John TOP　past　in　once　　man　ACC　kill-TE-IRU
John has killed a man once in his past.

[39 Winning]

(2F)　Nihon chiimu wa　　kankoku chiimu ni　　　10nen　mae　ni　kat-te-iru.
Japan team　TOP　Korea　　team　　against　10year　ago　at　win-TE-IRU
The Japanese team beat the Korean team 10 years ago.

[40 Discovery]

(2F)　Sono kenkyuu chiimu wa　{kyonen}　shinsei　o　　　hakkenshi-te-iru.
the　research team　　TOP　{last.year} new.star ACC　discover-TE-IRU
The research team has discovered a new star (*last year).

429

12. Situation types that take 2*

[1-1Natural Kinds]

[1-2 Ethnicity]

[1-3 Biological Kinds]

[1-4 Physical Properties]

[2-1 Existence]

[2-2 Necessity]

[2-3 Dispositions]

[3 Social Role]

[4 Physical States]

[5 Bodily States]

13. Situation types that take 3P

[14 Perceptual Activity]

(3P)
Watashi wa   sono bideo o   nijikan   de mi-ta.
I   TOP the   video ACC two.hours in watch-PAST
I watched the video in two hours.

[16 Change of Weight]

(3P)
Mary wa   sankagestsu de   {kirei   ni}   yase-ta.
Mary TOP three.months with {beautiful RST} become.thin-PAST
Mary became beautifully slender in three months.

[17 Change of Physical Properties]

(3P)
Suupu wa   gohun   de   atatamat-ta.
soup   TOP five.minutes with get.warm-PAST
The soup got warm in five minutes.

[18 Blooming]

(3P)
Niwa   no   bara no   hana   ga   ichinichi de sai-ta.
garden GEN rose GEN flower NOM one.day   in bloom-PAST
The rose in the garden bloomed in one day.

[19 Directed Motion]

(3P)
Sono kodomo wa   gohun   de   mizu ni hait-ta.
that   child   TOP five.minutes with water in go.into-PAST
The child went into the water in five minutes.
(The event happens gradually, a part of the child's body enters the water little
by little.)

[20 Open/Close]

(3P)
Sono tsubomi wa gojikan de hirai-ta.
the bud TOP five.hour in open-PAST
The bud opened in five hours.

[24 Manner of Motion 1]

(3P)
Taro wa 10kiro o 50pun de hashit-ta.
Taro TOP 10kilometre ACC 50minutes in run-PAST
Taro ran 10 kilometres in 50 minutes.

[25 Manner of Motion 2]

(3P)
Hanako wa 2kiro o 10pun de oyoi-da.
Hanako TOP 2kilometre ACC ten.minute in swim-PAST
Hanako swum 2 kilometres in ten minutes.

[27 Performance]

(3P)
Jacqui wa Corrs no shinkhoku o gohun de utat-ta.
Jacqui TOP Corrs GEN new.song ACC five.minute in sing-PAST
Jacqui sang Corrs' new song in five minutes.

[29 Consumption]

(3P)
Jack wa ookina sandoicchi o ippun de tabe-ta.
Jack TOP big sandwich ACC one.minute in eat-PAST
Jack ate the big sandwich in one minute.

[30 Covering]

(3P)
Chichi wa juppun de kuruma o shiito de oot-ta.
father TOP ten.minute in car ACC sheet with cover-PAST
My father covered his car with a sheet in ten minutes.

[31 Creation]

(3P)
Haha wa sono doresu o ikkagestsu de tsukut-ta.
mother TOP the dress ACC one.month in make-PAST
My mother made that dress in one month.

[32 Dismantle]

(3P)
Sono burudoozaa wa ichinichi de kousha o torikowashi-ta.
the bulldozer TOP one.day in schoolhouse ACC dismantle-PAST
The bulldozer dismantled the old schoolhouse in one day.

[33 Dyeing and Shaving]

(3P)
Kanojo wa ichijikan de kami o some-ta.
she TOP one.hour in hair ACC dye-PAST
She dyed her hair in one hour.

14. Situation types that take 3V

[8 Posture 2]

(3V)
Steve wa totsuzen tat-ta.
Steve TOP suddenly stand-PAST
Steve stood up suddenly.

[9 Perception]

(3V)
Huji-san ga totsuzen mie-ta.
Mt.Fuji NOM suddenly be.visible-PAST
Mt. Fuji suddenly became visible.

[10 Cognition 1]

(3V)
Taro wa shunkanni sono suushiki o rikaishi-ta.
Taro TOP in.an.instant the formula ACC understand-PAST
Taro finally understood the formula in an instant.

[11 Cognition 2]

(3V)
Watashi wa totsuzen [Hanako o kirei da to] omot-ta.
I TOP suddenly [Hanako is beautiful] think-PAST
I suddenly thought that Hanako was beautiful.

[12 Emotional Activity]

(3V)
Haha wa watashi no seikou o totsuzen yorokon-da.
mother TOP I GEN success ACC suddenly rejoice-PAST
My mother suddenly became happy with my success.

[13 Sleeping]

(3V)
Chichi wa saiminjutsu de shunkanni namut-ta.
father TOP hypnotism with in.an.instant sleep-PAST
My father fell asleep in an instant due to being hypnotised.

[14 Perceptual Activity]

(3V)
Watashi wa sono shunkan yuurei o mi-ta.
I TOP the instant ghost ACC see-PAST
I saw a ghost in that instant.

[15 Attitudes]

(3V)
Kanojo wa kyuuni sumashi-ta.
she TOP suddenly put.on.airs-PAST
She suddenly put on airs.

[17 Change of Physical Properties]

(3V)
Sono kinzoku wa sono saishin gijutsu de shunkanni hie-ta.
that metal TOP that latest technology with in.an.instant cool-PAST
The metal cooled down in an instant with the latest technology.

[18 Blooming]

(3V)
Niwa no bara no hana ga totsuzen sai-ta.
garden GEN rose GEN flower NOM suddenly bloom-PAST
The rose in the garden bloomed suddenly.

[19 Directed Motion]

(3V)
John wa totsuzen koya ni hait-ta.
John TOP suddenly kennel ALL go.into-PAST
John suddenly went into his kennel.

[20 Open/Close]

(3V)
Totsuzen mado ga hirai-ta.
suddenly window NOM open-PAST
Suddenly the window opened.

[21-1 Light Emission]

(3V)
Sono dentou wa totsuzen chikachika hikat-ta.
the light TOP suddenly ONMP2 shine-PAST
The light flashed suddenly.

[21-2 Sound Emission]

(3V)
Nezumi ga totsuzen chuchu nai-ta.
mouse NOM suddenly ONMP2 cry-PAST
The mouse suddenly squeaked.

[22-1 Contact]

(3V)
Jack wa Mary no kata o totsuzen ponpon tatai-ta.
Jack TOP Mary GEN shoulder ACC suddenly ONMP2 pat-PAST
Jack patted Mary on the shoulder suddenly. (not semelfactive)

[22-2 Bodily Motion]

(3V)
Mary wa John ni totsuzen te o hut-ta.
Mary TOP John to suddenly hand ACC wave-PAST
Mary suddenly waved to John.

[23 Touching]

(3V)
John wa totsuzen Mary no kami ni te o hure-ta.
John TOP suddenly Mary GEN hair at hand ACC touch-PAST
John suddenly touched Mary's hair with his hand.

[24 Manner of Motion 1]

(3V)
?Taro wa totsuzen hashit-ta.
Taro TOP suddenly run-PAST
Taro suddenly ran. (Taro suddenly started to run.)

[25 Manner of Motion 2]

(3V)
?Hanako wa totsuzen oyoi-da.
Hanako TOP suddenly swim-PAST
Hanako suddenly swam. (Hanako suddenly started to swim.)

433

[26 Motion/Movement]

(3V)
Sono kuruma wa   totsuzen ugoi-ta.
the   car   TOP suddenly move-PAST
The car suddenly moved.

[27 Performance]

(3V)
?Jacqui wa   totsuzen utat-ta.
 Jacqui TOP suddenly sing-PAST
 Jacqui suddenly sang. (Jacqui suddenly started to sing.)

[28 Create Mark/Defect]

(3V)
Kanojo wa   totsuzen tegami o   yabui-ta.
she   TOP suddenly letter   ACC tear-PAST
She suddenly tore up the letter.

[29 Consumption]

(3V)
?Jack wa   shunkanni   sandoicchi o   hitokuchi de   tabe-ta.
 Jack TOP in.an.instant sandwich   ACC one.gulp with eat-PAST
 Jack ate the sandwich in one gulp in an instant.

[30 Covering]

(3V)
Kiri ga   machi o   totsuzen oot-ta.
fog NOM city   ACC suddenly cover-PAST
The fog suddenly covered the city.

[32 Dismantle]

(3V)
Bakudan de   totsuzen kyuu kousha   o   torikowashi-ta.
bomb   with suddenly old   schoolhouse ACC dismantle-PAST
They dismantled the old schoolhouse suddenly with the bomb.

[33 Dyeing and Shaving]

(3V)
?Kanojo wa   totsuzen kami o   some-ta.
 she   TOP suddenly hair ACC dye-PAST
 She suddenly dyed her hair. (She suddenly started to dye her hair.)

[34 Dressing]

(3V)
Mary wa 5ji   5hun   ni huku o   ki-ta.
Mary TOP 5o'clock 5minutes at clothes ACC put.on-PAST
Mary dressed herself at 5:05.

[35 Dying]

(3V)
Chichi wa   totsuzen nakunat-ta.
father TOP suddenly die-PAST
My father died suddenly.

[36 Fracture/Breaking (intra)]

(3V)
Sono tsubo wa   totsuzen ware-ta.
the   vase TOP suddenly break-PAST
The vase broke suddenly.

[37 Attachment]

(3V) Sono secchakuzai wa shunkanni kinzoku ni kuttsui-ta.
      the   adhesive.agent TOP in.an.instant metal to stick-PAST
      The adhesive agent stuck to metal in an instant.

[38 Killing]

(3V) Chichi wa shunkanni shichimenchou o kososhi-ta.
      father TOP in.an.instant turkey   ACC kill-PAST
      Father killed a turkey in an instant.

[39 Winning]

(3V) John wa 5ji   5hun   ni kesshou.sen ni   kat-ta.
      John TOP 5o'clock 5minutes at final.game OJCT win-PAST
      John won the final game at 5:05.

[40 Discovery]

(3V) Sono kenkyuu chiimu wa 5ji   5hun   ni shinsei o   hakkenshi-ta.
      the research team   TOP 5o'clock 5minutes at new.star ACC discover-PAST
      The research team discovered a new star at 5: 05.

15. Situation types that take 3C

[21-1 Light Emission]

(3C) Sono dentou wa   chikat-to ichido hikat-ta.
      the light TOP ONMP1   once   shine-PAST
      The light flashed only once.

[21-2 Sound Emission]

(3C) Nezumi ga   ichido chut-to nai-ta.
      mouse   NOM   once   ONMP1   cry-PAST
      The mouse squeaked once.

[22-1 Contact]

(3C) Jack wa Mary no   kata   o   totsuzen pon-to   tatai-ta.
      Jack TOP Mary GEN shoulder ACC suddenly ONMP1   pat-PAST
      Jack suddenly patted Mary on the shoulder once.

[22-2 Bodily Motion]

(3C) Mary wa John ni ikkai te   o   hut-ta.
      Mary TOP John to once hand ACC wave-PAST
      Mary waved to John once.

[23 Touching]

(3C) John wa isshun   Mary no kami ni te o   hure-ta.
      John TOP one.moment Mary GEN hair at hand ACC touch-PAST
      John touched Mary's hair with his hand just for a second.

[28 Create Mark/Defect]

(3C)
Kanojo wa birit-to sono tegami o yabui-ta.
she TOP ONMP1 the letter ACC tear-PAST
She tore the letter.

16. Situation types that take 3R

[8 Posture 2]

(3R)
Sono roujin wa gohun de tat-ta.
the old.man TOP five.minute in stand-PAST
The old man stood up in five minutes.

[9 Perception]

(3R)
Huji-san ga juppun de mie-ta.
Mt.Fuji NOM ten.minute in be.visible-PAST
Mt. Fuji became visible in ten minutes (after ten minutes).

[10 Cognition 1]

(3R)
Taro wa ikkagestu de sono suushiki o rikaishi-ta.
Taro TOP one.month in the formula ACC understand-PAST
Taro understood the formula in one month (one month later).

[11 Cognition 2]

(3R)
?Hanako wa kami o ikkagetsu de shinji-ta.
Hanako TOP God ACC one.month in believe-PAST
Hanako came to believe in God in one month (one month later).

[13 Sleeping]

(3R)
Mary wa gohun de nemut-ta.
Mary TOP five.minute in sleep-PAST
Mary fell asleep in five minutes (five minutes later).

[14 Perceptual Activity]

(3R)
?Watashi wa ippun de yuurei o mi-ta.
I TOP one.minute in ghost ACC see-PAST
I saw the ghost in one minute (one minute later).

[18 Blooming]

(3R)
?Niwa no bara no hana ga ichinichi de sai-ta.
garden GEN rose GEN flower NOM one.day in bloom-PAST
The rose in the garden bloomed in one day (one day later).

[19 Directed Motion]

(3R)
John wa ippun de koya ni hait-ta.
John TOP one.minute with kennel ALL go.into-PAST
John went into his kennel in one minute (one minute later).

[20 Open/Close]

(3R)　?Sono doa wa ippun de hirai-ta.
　　　the door TOP one.minute in open-PAST
　　　The door opened in one minute (one minute later).

[21-1 Light Emission]

(3R)　?Sono dentou wa ippun de hikat-ta.
　　　the light TOP one.minute in shine-PAST
　　　The light flashed in one minute (one minute later).

[21-2 Sound Emission]

(3R)　?Sono tori wa ichijikan de nai-ta.
　　　the bird TOP one.hour in cry-PAST
　　　The bird sang in one hour (one hour later).

[22-1 Contact]

(3R)　?Jack wa nihun de Brigitte no kata o tatai-ta.
　　　Jack TOP two.minute in Brigitte GEN shoulder ACC pat-PAST
　　　Jack patted Brigitte on the shoulder in two minutes. (It took two minutes.)

[22-2 Bodily Motion]

(3R)　?Mary wa John ni ippun de te o hut-ta.
　　　Mary TOP John to one.minute in hand ACC wave-PAST
　　　Mary waved to John in one minute (after one minute).

[23 Touching]

(3R)　?Nina wa juppun de buta ni hajimete hure-ta.
　　　Nina TOP ten.minute in pig at for.the.first.time touch-PAST
　　　Nina touched a pig in ten minutes for the first time (ten minutes later).

[24 Manner of Motion 1]

(3R)　?Taro wa ippun de hashit-ta.
　　　Taro TOP one.minute in run-PAST
　　　Taro ran in one minute (one minute later).
　　　(It took one minute before Taro started running.)

[25 Manner of Motion 2]

(3R)　?Hanako wa ippun de oyoi-da.
　　　Hanako TOP one.minute in swim-PAST
　　　Hanako swam in one minute (one minute later).
　　　(It took one minute before Hanako started swimming.)

[26 Motion/Movement]

(3R)　Sono kuruma wa sanpun de ugoi-ta.
　　　the car TOP three.minute in move-PAST
　　　The car moved in three minutes (three minutes later).

[27 Performance]

(3R)
?Jacqui wa gohun de utat-ta.
Jacqui TOP five.minutes in sing-PAST
Jacqui sang in five minutes (five minutes later).
(It took five minutes before she started to sing.)

[28 Create Mark/Defect]

(3R)
?Kanojo wa gohun de sono tegami o yabui-ta.
she TOP five.minute in the letter ACC tear-PAST
She tore up the letter in five minutes (five minutes later).

[30 Covering]

(3R)
?Juppun de kiri ga machi o oot-ta.
ten.minute in fog NOM city ACC cover-PAST
The fog covered the city in ten minutes (ten minutes later).

[32 Dismantle]

(3R)
Sono kodomo wa juppun de sono omocha o kowashi-ta.
the child TOP ten.minute in the toy ACC destroy-PAST
The child destroyed the toy in ten minutes (ten minutes later).

[34 Dressing]

(3R)
Mary wa gohun de huku o ki-ta.
Mary TOP five.minute in clothes ACC put.on
Mary dressed herself in five minutes (five minutes later).

[35 Dying]

(3R)
Chichi wa hatsubyou kara ichinen de nakunat-ta.
father TOP falling.ill from one.year in die-PAST
My father died in one year after he fell ill.

[36 Fracture/Breaking (intra)]

(3R)
Sono tsubo wa gohun de ware-ta.
the vase TOP five.minutes in break-PAST
The vase broke in five minutes (five minutes later).

[37 Attachment]

(3R)
Sono secchakuzai wa juppun de kinzoku ni kuttsui-ta.
the adhesive.agent TOP ten.minute in metal to stick-PAST
The adhesive agent stuck to metal in ten minutes (after ten minutes).

[38 Killing]

(3R)
Chichi wa 10pun de shichimenchou o koroshi-ta.
father TOP 10minutes with turkey ACC kill-PAST
Father killed a turkey in ten minutes (ten minutes later).

[39 Winning]

(3R)
John wa 10pun de kesshou.sen ni kat-ta.
John TOP 10minutes with final.game OJCT win-PAST
John won the final game in ten minutes (ten minutes later).

[40 Discovery]

(3R)
Sono kenkyuu chiimu wa   ichinen de shinsei o   hakkenshi-ta.
the   research team   TOP one.year in new.star ACC discover-PAST
The research team discovered a new star in one year (one year later).

17. Situation types that take 3U

[12 Emotional Activity]

(3U)
Haha   wa   nagai aida   watashi no   seikou o   yorokon-da.
mother TOP long   period I   GEN success ACC rejoice-PAST
My mother was happy with my success for a long time.

[13 Sleeping]

(3U)
Watashi wa   kinou   rokujikan no   aida   nemut-ta.
I   TOP yesterday six.hour   GEN period sleep-PAST
I slept for six hours yesterday.

[14 Perceptual Activity]

(3U)
Watashi wa   kinou   sanjikan no   aida   terebi o   mi-ta.
I   TOP yesterday three.hours GEN period TV   ACC watch-PAST
I watched TV for three hours yesterday.

[18 Blooming]

(3U)
?Niwa no   bara no   hana ga   mikkakan no   aida   sai-ta.
 garden GEN rose GEN flower NOM three.day GEN period bloom-PAST
?The rose in the garden was in bloom for three days.

[21-1 Light Emission]

(3U)
Sono dentou wa   ichijikan no   aida   hikat-ta.
the   light   TOP one.hour GEN period shine-PAST
The light flashed for one hour.

[21-2 Sound Emission]

(3U)
Sono tori wa   ichijikan no   aida   nai-ta.
the   bird TOP one.hour GEN period cry-PAST
The bird sang for one hour.

[22-1 Contact]

(3U)
Jack wa   Brigitte no   kata   o   ichijikan no   aida   tatai-ta.
Jack TOP Brigitte GEN shoulder ACC one.hour GEN period pat-PAST
Jack patted Brigitte on the shoulder for an hour.

[22-2 Bodily Motion]

(3U)
Mary wa   John ni gohunkan   no   aida   te   o   hut-ta.
Mary TOP John to five.minutes GEN period hand ACC wave-PAST
Mary waved her hand to John for five minutes.

[23 Touching]

(3U)
Nina wa neko ni te o ichijikan no aida hure-ta.
Nina TOP cat at hand ACC one.hour GEN period touch-PAST
Nina touched the cat's fur with her hand for one hour.

[24 Manner of Motion 1]

(3U)
Taro wa ichijikan no aida hashit-ta.
Taro TOP one.hour GEN period run-PAST
Taro ran for one hour.

[25 Manner of Motion 2]

(3U)
Hanako wa ichijikan no aida oyoi-da.
Hanako TOP one.hour GEN period swim-PAST
Hanako ran for one hour.

[26 Motion/Movement]

(3U)
Sono omocha wa shibaraku no aida ugoi-ta.
the toy TOP while GEN period move-PAST
The toy moved for a while.

[27 Performance]

(3U)
Jacqui wa gohun no aida utat-ta.
Jacqui TOP five.minutes GEN period sing-PAST
Jacqui sang for five minutes. (without finishing a song)

[28 Create Mark/Defect]

(3U)
Neko wa gohun no aida kabe o hikkai-ta.
cat TOP five.minute GEN period wall ACC scratch-PAST
The cat scratched the wall for five minutes.
(engaged in the activity for five minutes)

18. Situation types that take 3D

[14 Perceptual Activity]

(3D)
Watashi wa sono bideo o ichijikan no aida mi-ta.
I TOP the video ACC one.hour GEN period watch-PAST
I watched the video for an hour.

[15 Attitudes]

(3D)
Kare wa masumasu hinekure-ta.
he TOP more.and.more get.warped-PAST
He got more and more warped.

[16 Change of Weight]

(3D)
Mary wa sukoshizutsu hutot-ta.
Mary TOP little.by.little become.fat-PAST
Mary became fat little by little.

[17 Change of Physical Properties]

(3D)
Suupu wa   sukoshizutsu atatamat-ta.
soup   TOP little.by.little get.warm-PAST
The soup got warm little by little.

[20 Open/Close]

(3D)
Sono doa wa   sukoshizutsu hirai-ta.
the   door TOP little.by.little open-PAST
The door opened little by little. (But we do not know if it opens fully)

[26 Motion/Movement]

(3D)
Jishin   de tsukue ga   sukoshizutsu minami ni ugoi-ta.
earthquake INST desk   NOM little.by.little south   to move-PAST
The desk moved little by little towards the south because of the earthquake.

[27 Performance]

(3D)
Jacqui wa gohun   no aida   sono shinkyoku o   utat-ta.
Jacqui TOP five.minute GEN period the   new.song ACC sing-PAST
Jacqui sang Corrs' new song for five minutes.
(She did not necessarily finish it.)

[29 Consumption]

(3D)
Joel wa   gohunkan   no   aida   yuushoku o   tabe-ta.
Joel TOP five.minutes GEN period supper   ACC eat-PAST
Joel ate his supper for five minutes.
(He did not necessarily finish his supper.)

[30 Covering]

(3D)
Chichi wa   kuruma o   shiito de gohunkan   no   aida oot-ta.
father TOP car   ACC sheet with five.minutes GEN period cover-PAST
My father covered his car with a sheet little by little for five minutes.

[31 Creation]

(3D)
Haha   wa   nijikan   no   aida   doresu o   tsukut-ta.
mother TOP two.hour GEN period dress   ACC make-PAST
My mother made (was making) the dress for two hours.
(engaged in the activity for two hours)

[32 Dismantle]

(3D)
Sono kikai   wa sanjikan   no aida   tatemono o   torikowashi-ta.
the   machine TOP three.hours GEN period building ACC dismantle-PAST
The machine dismantled (was dismantling) the building for three hours.
(does not have to be finished)

[33 Dyeing and Shaving]

(3D)
Kanojo	wa	ichijikan	no	aida	kami	o	some-te
she	TOP	one.hour	GEN	period	hair	ACC	dye-and

sorekara	shibaraku	kyuukei-shi-ta.
then	for.a.while	take.rest-PAST

She dyed her hair for an hour, then took a rest.
(May not have finished dying her hair.)

19. Situation types that take 3T

[2-1 Existence]

(3T)
Gohun	mae	wa	soko	ni	hon	ga	at-ta.
five.minute	ago	TOP	there	at	book	NOM	be-PAST

The book was there five minutes ago.

[2-2 Necessity] iru_2 'need'

(3T)
Kyonen	kare	ni-wa	kane	ga	it_2-ta.
last.year	he	to-TOP	money	NOM	need/necessary-PAST

He needed money last year.

[2-3 Dispositions]

(3T)
Jack	wa	sukoshi	no	aida	shinsetsu	dat-ta.
Jack	TOP	little	GEN	period	kind	DA-PAST

Jack was kind for a while.

[3 Social Role]

(3T)
John	wa	gonenkan	shachou	dat-ta.
John	TOP	for.five.years	president	DA-PAST

John was president for five years.

[4 Physical States]

(3T)
Sono	mizuumi	no	mizu	wa	ikkagestsukan	tsumetak-kat-ta.
the	lake	GEN	water	TOP	for.a.month	cold-inflection-PAST

The water of the lake was cold for one month.

[5 Bodily States]

(3T)
Kare	wa	byouki	dat-ta.
he	TOP	ill	DA-PAST.

He was ill.

[9 Perception]

(3T)
Kinou	wa	Huji-san	ga	gojikan	no	aida	mie-ta.
yesterday	TOP	Mt.Fuji	NOM	five.hour	GEN	period	be.visible-PAST

Mt. Fuji was visible for five hours yesterday.

20. Situation types that take 3*

[1-1Natural Kinds]
[1-2Ethnicity]
[1-3 Biological Kinds]
[1-4 Physical Properties]
[7-1 Relation 2]
[6 Relation 1]
[7-2 Posture 1]

APPENDIX B.   Levin's classification of verbs of putting
(Levin 1993: 111-122)

9.1   *Put* Verbs (*install, place, put*)

ex.   *I put the book on/under/near the table.*

(i)   they refer to putting an entity at some location
(ii)   the location is expressed via a prepositional phrase headed by one of the locative prepositions
(iii)   Prepositional phrases cannot be headed by the goal *to* or the source *from*
         ex.   **I put the book from Edna to Sally.*

9.2   Verbs of Putting in a Spatial Configuration (*hang, lean, stand*)

ex.   *Cheryl stood the books on the shelf/next to the magazines.*

(i)   they refer to putting an entity at some location
(ii)   they specify the particular spatial configuration that the placed entity ends up in with respect to the location
(iii)   they allow a variety of locative prepositional phrases, but not with source or goal phrases
(iv)   most of them have the causative alternation
         ex. a. *Cheryl stood the books on the table.*
             b. *The books stood on the table.*

9.3   *Funnel* Verbs (*funnel, scrape, wipe*)

ex.   I funneled the mixture into the bottle.
      ?? I funneled the mixture in the bottle.
(i)   they relate to putting an entity in some location in some manner
(ii)   they usually involve putting entities in spatially confined locations
(iii)   they prefer *into* rather than *in* and *onto* rather than *on*
(iv)   they occur with a wide range of locative prepositions
(v)   they do not occur with *to* but some of them occur with *from*
(vi)   they are vague about the resulting spatial configuration of the entity placed

9.4   Verbs of Putting with a Specified Direction (*hoist, lift, lower*)

ex.   *I lifted the books.*
        I lifted the book onto the table/out of the box.
            *I lifted the book on the table.

(i)   they relate to putting an entity somewhere, typically by moving it in a specific direction (exerting a force against the action of gravity)
(ii)   they show a preference for *onto* and *into* over *on* or *in*
(iii)   they occur with a wide range of locative prepositions
(iv)   some of them occur in source prepositions or with paths describing a

trajectory of motion

9.5   *Pour* Verbs (*dribble, pour, spew*)

ex.   *Tamara poured water into the bowl/over the flowers.*
       Tamara poured water from/out of the pitcher.

(i)   they relate to putting things—typically liquids—on surfaces or in
        containers
(ii)   they allow only the locative variant of the locative alternation
        ex. a. *Tamara poured water into the bowl.*
            b. **Tamara poured the bowl with water.*
(iii)   they allow *from* phrases
(iv)   many of them participate in a causative alternation
        ex. a. *Tamara poured water onto the plants.*
            b. *Water poured onto the plants.*

9.6   *Coil* Verbs (*coil, roll, twist*)

ex.   *Cora coiled the rope around the post.*

(i)   they relate to putting something around something else.
(ii)   they are most often found with the preposition *around*
        (a limited range of preposition)
(iii)   they can be used as intransitive verbs of manner of motion

9.7   *Spray/Load* Verbs (*inject, load, spray*)

ex.   Jessica loaded boxes onto/into/under the wagon.

(i)   they relate to covering surfaces and putting things into containers
(ii)   they participate in the locative alternation
        (holistic/partitive effect)
        ex. a. *Jessica loaded boxes on the wagon.*
            b. *Jessica loaded the wagon with boxes.*
(iii)   verbs that take a liquid or a set of small particles as the typical direct
        object in the locative variant are found in the conative alternation
        ex. a. *Jessica sprayed water at me.*
            b. **Jessica loaded boxes at the truck.*

9.8   *Fill* Verbs (*cover, decorate, staff*)

ex.   *Leslie staffed the store with employees.*

(i)   they relate to covering surfaces and putting things into containers
(ii)   they are only found in the *with* variant of the locative alternation
(iii)   when the locatum is expressed as the subject, the sentence can be
        understood as describing a state
(iv)   they typically describe the resulting state of a location as a consequence
        of putting something on it or in it

445

(v)   verbs that involve covering with clothes or cloths, allow *with* to
        alternate *in*
        ex.   *Leigh swaddled the baby with/in blankets.*

9.9   *Butter* Verbs (*butter*, *plaster*, *sugar*)

ex.   *Lora buttered the toast.*
        (i.e., Lora put butter on the toast.)

(i)   they all have zero-related nominals(note 2); the related nouns refer to an
        entity that is moved
(ii)   the object of these verbs receives the "holistic" interpretation found in
        the *with* variant of the locative alternation
        ex. a.   **Lora buttered unsalted butter on the toast.*
            b.   *Lora buttered the toast with unsalted butter.*

9.10   *Pocket* Verbs (*bottle*, *ground*, *pocket*)

ex.   Lydia pocketed the change.
        (i.e., Lydia put the change in her pocket.)

(i)   they all have zero-related nominals: the related nouns refer to a location
        where things can be put

APPENDIX C.   List of classes of verbs of putting in Japanese

CLS	Scls	Type Name	No	FA-type linkings		GA-type linkings		GO-linking	Source	Other s.pattern	aspect	prominent syntactic or semantic characteristics
				L-linking	FA-linking	I-linking	GA-linking					
1		*oku* 'put'	15	OK	*	*	*	*	*		punctual	(1) allow various locational phrases, (2) putting an entity to a location
2	1	*ireru* 'put into'	5	OK	*	*	*	*	OK	path pattern	punctual	(1) are productive as V2 components, (2) spatial transfer with a specified direction
2	2	*ageru* 'raise'	3	OK	OK	*	*	*	OK	path pattern	punctual/ extended	(1) are productive as V2 components, (2) spatial transfer with a specified direction
3		*hitasu* 'soak'	18	OK	*	*	*	*	*		punctual/ extended	(1) the locational phrase (inside) can be used instead of *ni*. (2) putting things in a confined place
4		*sosogu* 'pour into'	9	OK	*	*	*	*	?? (OK for some)	path pattern	punctual/ extended	(1) putting or pouring an entity into a container
5		*kabuseru* 'put on'	38	OK	*	*	*	*	*		punctual/ extended	(1) similar to type 1 and type 3, but it does not specify the figure is in/inside the ground
6	1	*tsukeru* 'apply'	4	OK	*	*	*	*	*		extended	(1) the figure is n uncountable entity, (2) the ground is a surface
6	2	*maku* 'scatter'	14	OK	OK (mostly)	*	*	*	OK (mostly)	path (mostly)	extended	(1) the figure is uncountable entity, (2) the ground is a surface
7	1	*tsurusu* 'hang'	6	OK	OK	*	*	*	OK		punctual	(1) entail spatial configuration, (2) *ni* can be replaced by *kara* specifying an identical referrent (the ground)
7	2	*tateru* 'stand'	2	OK	OK	*	*	*	*		punctual	(1) entail spatial configuration

CLS	Scls	Type Name	No	FA-type linkings		GA-type linkings		GO-linking	Source	Other s.pattern	aspect	prominent syntactic or semantic characteristics
				L-linking	FA-linking	I-linking	GA-linking					
8		*tsumu* 'load'	3	OK	*	*	*	*	*	GS-linking with *te-iru*, ??path	punctual/ extended	(1) denote event of loading, (2) take GS-linking
9		*oou* 'cover'	9	*	*	OK	OK (some)	*	*	IS-linking	punctual/ extended	(1) take IS-linking
10		*yogosu* 'dirty'	15	*	*	OK	OK	*	*		punctual/ extended	(1) used as change of state verbs
11		*kazaru* 'decorate'	6	OK	*	OK	OK (some)	*	*		extended (punctual)	(1) manifest the locative alternation
12		*tsutsumu* 'wrap'	4	OK	*	OK (RI)	*	*	*		extended	(1) manifest the locative alternation by FG construal alternation
13		*hou.boku-suru* 'graze'	6	OK	OK	*	*	*	*		punctual	(1) ground incorporation
14		*san.sui-suru* 'scatter water'	12	OK	OK (some)	*	*	OK	OK (some)	path (some)	punctual extended	(1) figure incorporation
15		*shoku.rin-suru* 'afforest'	3	OK	*	OK	OK	OK	*	path (some)	extended	(1) figure incorporation with the alternating linkings
16		*hame-komu* 'put in/on-put.into'	80	OK	*	*	*	*	OK (some)	path pattern	punctual/ extended	(1) means compound with specified direction
17		*nuri-tsukeru* 'smear-apply'	22	OK	*	*	*	*	*		punctual/ extended	(1) means compound of FA-type linking
18		*ooi-kakusu* 'cover-hide'	2	*	*	OK	OK	*	*		extended	(1) means compound of GA-type linking

APPENDIX D.   List of verbs of putting in Japanese

The following are the major topics in the list.

(1) The major topics in the list[1]:

[CLS]	Class of verbs (of putting)
[Scls]	Subclass of verbs (of putting) (or type of events)
[Japanese]	Japanese verbs
[Vtype]	Type of Verb
[English]	English translation equivalent
[Direct Translation]	Direct and detailed translation
[English Levin]	English Corresponding Verbs in Levin (1993)

[CLS] (and [Scls]): class of verbs

They correspond to the number of types (and subtypes) of events described and discussed. If a certain verb of putting in Japanese is '1 *put* type,' then the number the verb is assigned will be '1.' These numbers for CLS and Scls are the same as in the summary of verbs of putting in the main text. I use Type 20-1 ~ Type 20-6 to refer to other classes of three argument verbs which are related to verbs of putting.

Type 20-1—verbs of sending and carrying
Type 20-2—verbs of transfer of possession
Type 20-3—verbs of combining
Type 20-4—verbs of contact
Type 20-5—verbs of throwing
Type 20-6—verbs of removing

[Japanese]: Japanese verbs

I list the Japanese verbs. I do not distinguish homonymous verbs that have different senses which can be categorised differently in my classification of verbs of putting or polysemous verbs that have different but related senses.

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[1] Characters/words in the square brackets show an abbreviation or a title for each item in the list.

[Vtype]: Type of verb

Under this item, I clarify which type of verb (simple, compound, or VN-*suru*) a verb in question belongs to. The following is the abbreviation for each verb type:

(2)   Types of Verbs and abbreviation:

> Simple verb—simple
> Pair compound—pair
> Means compound—means
> Deverbalised V2 compound—dev2
> Deverbalised V1 compound—dev1
> Idiomatic (frozen) compound—frozen
> Chinese VN *suru*—CHI
> English VN *suru*—ENG

[English]: English translation equivalent

I have referred to the Japanese-English dictionaries listed in the methodology. I pick up English verbs whose meaning is closest. However, I need to mention that these translation equivalents are sometimes 'rough' or 'coarse-grained' in a strict sense. What I intend to do is to investigate the semantics of verbs which are thought to be relevant to argument linking and to propose a proper semantic representation. In this aim, I look at each verb more closely than the dictionaries usually do. For example, *kazaru* and its 'rough' English equivalent *decorate* do not exactly appear in the same argument linking patterns.

[Direct Translations]: direct and detailed translation

This applies to non-simple verbs. A detailed translation is given with each of the components of verbs translated into English. For example, each V1 and V2 component of compounds is translated.

[English Levin]: corresponding English verbs in Levin

This column lists corresponding English verbs in Levin's classification. The numbers in the parentheses correspond to the subsection where the verbs in question appear in Levin's subcategory. ('1' in the discussion of verbs of putting means that the verb is classified as 9.1 *Put* verbs in Levin's classification, for example.) In the case of verbs which are found in *A Dictionary of Synonyms in Japanese* or other sources in the process of '(4) looking for more members,' (cf. § 4.3.4) I specify the source. I mark with an asterisk verbs whose source is my knowledge.

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
1		chin.retsu-suru	CHI	display, exhibit	line.line-do	bench(10)
1		hai.chi-suru	CHI	arrange, post	line.put-do	arrange(1), place(1), position(1), set(1)
1		hai.retsu-suru	CHI	arrange	line.line-do	arrange(1), place(1)
1		ichizukeru	simple	position		set(1)
1		ko.tei-suru	CHI	fix, settle	fix.settle-do	mount(1), set(1)
1		noseru	simple	put		put(1), set(1)
1		oku	simple	put, assign		place(1), position(1), put(1), set(1), situate(1), lay(2), perch(2), rest(2), settle(in)(7), intersperse(8), staff(8), bang(3), ground(10), saddle(9), stress(9), shelve(10)
1		sarasu	simple	expose		pillory(10)
1		sou.chi-suru	CHI	mount, equip	decorate.put-do	mount(1)
1		sueru	simple	set		place(1)
1		sue-tsukeru	frozen	install	install.put-do	install(1), mount(1), set(1)
1		tori-tsukeru	dev1	install		install(1), cap(9), trap(10)
1		tsukeru	simple	put		dock(10)
1		tsukeru	simple	attach		spread(7), string(7), fleck(8), splotch(8), trim(8), frame(8), trim(8), smudge(7), soil(8), spot(8), stain(8), speckle(8), line(8), harness(9), rouge(9), buttonhole(9), bait(9), feather(9), label(9), halter(9), ticket(9), frame(9), sulphur(9), string(10),
1		uchi-tateru	frozen	set	hit-stand	set(1)
2	1	dasu	simple	take out		polish(9)
2	1	ireru	simple	put into		dip(3), drop(4), pump(into)(7), funnel(3), pot(10), bottle(10), dock(10), poison(9), garage(10), box(10), case(10), bag(10), house(10), kennel(10), jar(10), cage(10), corral(10), hangar(10), drydock(10), jug(10), spice(9), water(9), jug(10), coop(10), pen(10), leaven(9), pocket(10), sugar(9), warehouse(10), stable(10), load(7)
2	1	kaesu	simple	return		Matsumoto (1997: 169)
2	1	modosu	simple	return, vomit		spew(5)
2	1	otosu	simple	drop		Matsumoto (1997: 169)
2	2	ageru	simple	raise		lift(4), raise(4), hoist(4)
2	2	orosu	simple	lower, drop, unload		lower(4), dump(3), drop(4), drip(5), land(10)
2	2	sageru	simple	lower		JSD p. 1020

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
3		cho.zou-suru	CHI	keep, store	store.storehouse-do	bin(10)
3		hitasu	simple	soak		immerse(1), bathe(8), drench(8), saturate(8), soak(8), oil(9), dip(3)
3		ho.zon-suru	CHI	keep	keep.keep-do	bottle(10)
3		kakumau	simple	shelter		shelter(10)
3		kan.kin-suru	CHI	confine	control.forbid-do	pen(10)
3		kou.chi-suru	CHI	detain	capture.put-do	jail(10)
3		osameru	simple	put away		sheathe(10)
3		otoshi-ireru	frozen	entrap	drop-put into	entangle(8)
3		shizumeru	simple	sink		immerse(1)
3		shuu.nou-suru	CHI	put away	put in.keep-do	house(10)
3		shuu.you-suru	CHI	accommodate, lock up	put in.put into-do	house(10)
3		sonaeru	simple	furnish, prepare		stock(with)(7)
3		takuwaeru	simple	store, reserve		cellar(10)
3		toji-komeru	frozen	confine	shut-put into	pen(10), coop(10), cloister(10)
3		tomeru	simple	give lodge		lodge(10)
3		tsukeru	simple	soak		immerse(1), soak(8), chrome(9)
3		umeru	simple	bury, fill		stop up(8)
3		uzumeru	simple	bury, fill		fill(8)
4		chuu.sha-suru	CHI	inject	pour.prick-do	inject(7)
4		han.nyuu-suru	CHI	bring in	carry.put into-do	Matsumoto (1997: 175)
4		kumu	simple	draw, ladle		ladle(3)
4		shiireru	simple	stock		stock(with)(7)
4		shimau	simple	stow away		pack(7), house(10), stash(1)
4		sosogu	simple	pour into		funnel(3), pour(5)
4		sukuu	simple	scoop		ladle(3), scoop(3), shovel(3)
4		suu	simple	suck		siphon(3)
4		tsugu	simple	pour into		pour(5)
5		ateru	simple	put on		diaper(9), patch(9), dab(with)(7)
5		chaku.sou-suru	CHI	wear	wear.decorate-do	JSD p. 1042
5		chaku.you-suru	CHI	wear	wear.use-do	JSD p. 1042
5		chiri-bameru	frozen	encrust	scatter-fit into	encrust(8), inlay(8), stud(8)
5		chou.mi-suru	CHI	season, flavour	adjust.taste-do	season(8)

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
5		hameru	simple	fit on/in		mount(1), panel(9), gag(9), frame(9), glove(9)
5		haru	simple	stick on/in		stick(on, in)(7), cover(8), mount(1), plaster(7), tile(8), label(9), plank(9), board(9), plank(9), paper(9), wallpaper(9), veneer(9), poster(9), tile(9), parquet(9)
5		haru	simple	put up		string(9)
5		haru	simple	fill		JSD p. 1048
5		hasamu	simple	put between		interleave(8), lard(8)
5		hikkaburu	simple	wear,put on		JSD p. 54
5		itadaku	simple	wear		JSD p. 54
5		kabuseru	simple	cover, put over		lay(2), coat(8), cover(8), case(10), cap(9), silver(9), cap(9), crown(9), sugar(9),
5		kakeru	simple	ensnare		snare(10), trap(10)
5		kakeru	simple	put on, cover		wrap(around)(7), yoke(9), muzzle(9)
5		kakeru	simple	put up		sling(1)
5		kamuru	simple	wear		JSD p. 54
5		kiseru	simple	dress, plate		robe(8), cloak(9), mantle(9), robe(9), tin(10)
5		kobosu	simple	spill		slop(5), spill(5)
5		kuberu	simple	put on fire		fuel(9)
5		kuwaeru	simple	add		drug(9)
5		maku	simple	sow		set(1), seed(7), sow(7), stock(with)(7)
5		matou	simple	wear, drape around		wrap(around)(7), drape(around)(7)
5		megurasu	simple	surround		fence(9)
5		mori-ageru	frozen	serve, heap up		mound(7)
5		moru	simple	heap		JSD p. 395
5		noseru	simple	put on, place		perch(2), rest(2), load(7), stand(2), shelve(10)
5		okkabuseru	simple	wear, cover		JSD p. 54
5		sashi-hasamu	dev1	interleave		interleave(8)
5		sashi-kakeru	dev1	hold over		JSD p. 55
5		shiku	simple	spread on/over		lay(2), pave(8), gravel(9), brick(9), sod(9), carpet(9)
5		soeru	simple	add, garnish		season(8), smother(8), garnish(8)
5		sou.chaku-suru	CHI	wear	decorate.wear-do	JSD p. 1042
5		tataeru	simple	fill		JSD p. 1048

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
5		ten.koku-suru	CHI	stipple	spot.engrave-do	stipple(8)
5		ten.sai-suru	CHI	stipple	spot.colour-do	stipple(8)
5		tsukeru	simple	wear		cover(8), cloak(9)
5		tsumi-kasaneru	pair	pile up	pile-pile up	pile(on)(7), stack(?)(7)
5		tsumu	simple	pile on		stow(1), stack?(7), pile(with)(7)
5		ueru	simple	plant in		set(1), bed(10), plant(7), bed(10), plant(7)
5		zou.gan-suru	CHI	inlay	elephant.eye-do	inlay(8)
6	1	haku	simple	apply, brush		JSD p. 415
6	1	hiku	simple	apply		oil(9), wax(9)
6	1	sasu	simple	apply		oil(9), grease(9), rouge(9)
6	1	tsukeru	simple	apply		spread(7), string(7), fleck(8), splotch(8), trim(8), frame(8), trim(8), smudge(7), soil(8), spot(8), stain(8), speckle(8), line(8), harness(9), rouge(9), buttonhole(9), bait(9), feather(9), label(9), halter(9), ticket(9), frame(9), sulphur(9), string(10),
6	2	abise-kakeru	pair	shower	shower-splash	pound(3)
6	2	abiseru	simple	shower, pour into		pour(5), spray(with)(7), bombard(8), shower(on)(7)
6	2	baramaku	simple	scatter		scatter(7), strew(7)
6	2	bukkakeru	simple	dump, pour, dash		douse(8)
6	2	chirakasu	simple	scatter		litter(8)
6	2	chirasu	simple	sprinkle		sprinkle(7)
6	2	haku	simple	vomit, spew		spew(5)
6	2	hane-kakeru	pair	splash	splash-shower	spatter(7), splash(7), cover(8)
6	2	hanekasu	simple	splash		slosh(5)
6	2	kakeru	simple	shower, spread		smother(8), water(9), sand(9), spread(7), cover(8), veil(8), veil(9), shawl(9), drape(7)
6	2	mabusu	simple	sprinkle, dust		bread(9)
6	2	maki-chirasu	pair	scatter	scatter-scatter	scatter(7), sprinkle(7), strew(7), bestrew(8), cover(8)
6	2	maku	simple	scatter, sprinkle	A scatter F on/over G	gravel(9), salt(9), sand(9), seed(9), water(9)
6	2	tori-chirakasu	dev1	scatter		clutter(8), litter(8)
7	1	burasageru	simple	dangle		dangle(2)
7	1	kakeru	simple	hang		hang(2), suspend(2), hang(on)(7)
7	1	sageru	simple	hang		hang(2), hang(on)(7)

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
7	1	tarasu	simple	hang, drip		hang(2), dribble(5), drip(5)
7	1	tsuri-sageru	pair	hang	hang-hang	Matsumoto (1997: 173-4)
7	1	tsurusu	simple	hang		sling(1), hang(from)(2), suspend(2), hang(with)(7)
7	2	tateru	simple	stand		set(1), stand(2)
7	2	yokotaeru	simple	lay		JSD p. 101
8		noseru	simple	load, have on board		load(7), load(with)(8)
8		tou.sai-suru	CHI	mount	load.load-do	mount(1)
8		tsumu	simple	load		load(7), shovel(3)
9		huchidoru	simple	fringe		edge(8), face(8)
9		husagu	simple	block		wad(3), jam(with)(7), block(8), choke(8), clog(8), plug(8), stop up(8), board(9),
9		huu.sa-suru	CHI	block	block.shut-do	block(8)
9		kakomu	simple	surround		encircle(8), surround(8), brick(9)
9		kakou	simple	enclose		surround(8), board(9)
9		oou	simple	cover, hide		drape(7), spread(7), encrust(8), sheathe(10), veil(8), festoon(8), mask(8), veil(9), forest(9), blanket(9), pitch(9), brick(9), turf(9), sod(9), roof(9), cover(8), blindfold(9), bathe(8), cloak(8), shroud(8), suffuse(8), cloak(9), mantle(9),
9		sekitomeru	simple	dam		dam(8)
9		tori-kakomu	dev1	enclose		encircle(8), ring(8)
9		tori-maku	dev1	surround		ring(8), surround(8), wreathe(8)
10		hei.soku-suru	CHI	block	shut.block-do	block(8)
10		ho.sou-suru	CHI	pave	spread.decorate-do	pave(8), asphalt(9)
10		huku	simple	cover, thatch		tile(8), tile(9), shingle(9), thatch(9), slate(9), roof(9)
10		hyou.sou-suru	CHI	mount	face.decorate-do	cover(8)
10		jun.shoku-suru	CHI	embellish	decorate.color-do	embellish(8)
10		kegasu		dirty, soil		GJD p. 660
10		kyou.ka-suru	CHI	reinforce, intensify	strong.change-do	enrich(8)
10		nurasu	simple	wet		squirt(with)(7), slop(5)
10		o.sen-suru	CHI	contaminate, pollute	dirty.dye-do	pollute(8), contaminate(8), infect(8)
10		someru	simple	dye		imbue(8), infect(8)
10		sou.shoku-suru	CHI	decorate	decorate.decorate-do	adorn(8), deck(8), embellish(8)

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
10		to.hu-suru		paint	smear.spread-do	JSD p. 415
10		to.matsu-suru		paint	smear.spray-do	JSD p. 415
10		to.sou-suru	CHI	paint, coat	smear.decorate-do	JSD p. 415
10		yogosu	simple	dirty		slop(5), smear(7), smudge(7), blot(8), dirty(8), pollute(8), taint(8), soil(8), spot(8), spatter(7), ink(9)
11		kazari-tateru	dev2	decorate a lot	decorate-a lot	adorn(8), deck(8)
11		kazaru	simple	decorate, display		hang(2), drape(7), hang(with)(7), adorn(8), deck(8), decorate(8), embellish(8), emblazon(8), garnish(8), lard(8), ornament(8), trim(8), ornament(9), panel(9), veneer(9), garland(8), wreathe(8), festoon(8), intersperse(8), wreathe(9), garland(9)
11		mitasu	simple	fill		fill(8), inundate(8), line(8), replenish(8)
11		nuri-tateru	dev2	plaster	plaster-a lot	plaster(7)
11		nuru	simple	smear, apply		lay(2), slather(7), swab(with)(7), slather(7), dab(on, over)(7), wash?(with)(7), anoint(8), poison(9), ink(9), salve(9), pitch(9), rosin(9), wax(9), tar(9), coat(8), cover(8), stucco(9), whitewash(9), plaster(9), brush(7), oil(9), grease(9), butter(9), sp
11		tsumeru	simple	pack, fill		pack(7), crowd(7), cram(7), choke(8), box(10), crate(10), caulk(9), fill(8), plug(8)
12		kakusu	simple	cover, hide		stash(1), mantle(9), veneer(9), shelter(10), mask(8)
12		kurumu	simple	wrap		roll(6), bind(8), wrap(in)(7), swaddle(8), tuck(3), blanket(9)
12		maku	simple	wrap, tuck		curl(6), roll(6), wind(6), spool(10), wrap(around)(7), wreathe(8), wreathe(9), swaddle(8), swathe(8)
12		tsutsumu	simple	wrap, veil		wrap(in)(7), bind(8), cover(8), case(10), sheathe(10), wind(6), swathe(8), shroud(8), smother(8), mantle(9), wreathe(8)
13		fairu-suru	ENG	file	file-do	file(10)
13		hou.boku-suru	CHI	graze	release.pasture-do	pasture(10)
13		nou.kan-suru	CHI	lay in a coffin	keep.coffin-do	Matsumoto (1997: 176)
13		nyuu.kan-suru	CHI	lay in a coffin	put into.coffin-do	Matsumoto (1997: 176)
13		tou.goku-suru	CHI	jail	throw.prison-do	jail(10)
13		tou.kan-suru	CHI	drop into mailbox	throw.mailbox-do	Matsumoto (1997: 176)
14		hou.sui-suru	CHI	spray water	release.water-do	Matsumoto (1997: 176)
14		mizu.maki-suru	CHI	water	water.scatter-do	JSD p. 413
14		nyuu.ka-suru	CHI	receive goods	put into.load-do	Matsumoto (1997: 176)
14		nyuu.kin-suru	CHI	deposit money	put into.money-do	Matsumoto (1997: 176)

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
14		san.sui-suru	CHI	water	scatter.water-do	Matsumoto (1997: 176)
14		shoku.hi-suru	CHI	plant skin	plant.skin-do	GJD p. 1071
14		shoku.ju-suru	CHI	plant a tree	plant.tree-do	Matsumoto (1997: 176)
14		shoku.min-suru	CHI	colonise	plant.people-do	settle(in)(7)
14		shoku.mou-suru	CHI	plant hair	plant.hair-do	GJD p. 1072
14		shuk.ka-suru	CHI	ship	take out.load-do	Matsumoto (1997: 176)
14		shup.pin-suru	CHI	send to exhibit	take out.goods-do	Matsumoto (1997: 176)
14		uchi.mizu-suru	CHI	water	dash.water-do	JSD p. 413
15		chaku.shoku-suru	CHI	colour, paint	apply.color-do	Matsumoto (1997: 176)
15		juu.den-suru	CHI	charge battery	fill.electricity-do	Matsumoto (1997: 176)
15		shoku.rin-suru	CHI	afforest	plant.forest-do	Matsumoto (1997: 176)
16		chuu.nyuu-suru	CHI	pour into	pour.put into-do	pump(into)(7), inject(7)
16		daki-ageru	means	lift	hold-raise	lift(4)
16		haki-dasu	means	vomit out	vomit-take out	spew(5)
16		hakobi-komu	means	carry into	carry-put into	Kojien p. 2053
16		hame-komu	means	set/fit into	fit-put into	set(1), inlay(8)
16		hane-kaesu	means	slosh	splash-return	slosh(5)
16		hasami-komu	means	put between	put between-put into	JSD p. 1048
16		hiki-ageru	means	pull up	pull-raise	lift(4), raise(4), land(10), beach(10)
16		hiki-ireru	means	pull into	pull-put into	Matsumoto (1997: 173-4)
16		hiki-komu	means	draw into	pull-put into	channel(3)
16		hiki-orosu	means	pull down	pull-lower	Matsumoto (1997: 173-4)
16		hiki-otosu	means	pull down	pull-drop	Matsumoto (1997: 173-4)
16		hiki-yoseru	means	pull into	pull-pull to	Matsumoto (1997: 173-4)
16		hou.ryuu-suru	CHI	stock, discharge	release.flow to-do	stock(with)(7)
16		houri-komu	means	throw into	throw-put into	shovel(3)
16		huki-dasu	means	spew out	spew-take out	spew(5)
16		huki-komu	means	inspire with	blow-put into	stuff(7), imbue(8), impregnate(8)
16		kakae-ageru	means	lift	hold-raise	*
16		kaki-ageru	means	rake up	rake-raise	fork(10)
16		keri-ageru	means	kick up	kick-raise	Matsumoto (1997: 173-4)
16		keri-ireru	means	kick into	kick-put into	Matsumoto (1997: 173-4)

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
16		kurumi-komu	means	tuck in	wrap-put into	tuck(3)
16		kyuu.nyuu-suru	CHI	inhale	suck.put into-do	Matsumoto (1997: 175)
16		maki-ageru	means	roll up	roll-raise	hoist(4)
16		maki-komu	means	roll into	roll-put into	entangle(8)
16		maneki-ireru	means	invite to	invite-put into	Matsumoto (1997: 173-4)
16		mochi-ageru	means	lift	take hold of-raise	lift(4), fork(10), raise(4)
16		mochi-kaeru	means	take back	take hold of-return	Kojien p. 2539
16		mori-komu	means	heap into, serve	heap-put into	JSD p. 395
16		nagashi-komu	means	pour into	pour-put into	Matsumoto (1997: 173-4)
16		nage-ageru	means	throw upto	throw-raise	Matsumoto (1997: 173-4)
16		nage-ireru	means	throw into	throw-put into	Matsumoto (1997: 173-4)
16		nage-kaesu	means	throw back	throw-return	Matsumoto (1997: 173-4)
16		nage-komu	means	throw into	throw-put into	Matsumoto (1997: 173-4)
16		nori-ageru	means	beach	put-raise	beach(10)
16		nui-komu	means	sew into	sew-put into	sew(in, into)(7)
16		oi-ageru	means	chase up	chase-raise	tree(10)
16		okuri-kaesu	means	send back	send-return	Matsumoto (1997: 173-4)
16		okuri-komu	means	sent into	send-put into	funnel(3)
16		ori-komu	means	weave into	weave-put into	interweave(8)
16		oshi-ageru	means	push up	push-raise	Matsumoto (1997: 173-4)
16		oshi-dasu	means	push out	push-take out	push(3)
16		oshie-komu	means	instill into	teach-put into	pump(into)(7)
16		oshi-ireru	means	push into	push-put into	Matsumoto (1997: 173-4)
16		oshi-komeru	means	push into	push-put into	squash(3)
16		oshi-komu	means	cram into	push-put into	crowd(7), tuck(3), squeeze(3), cram(7), jam(into)(7), wedge(3)
16		oshi-yaru	means	push aside	push-put away	push(3)
16		otoshi-ireru	means	drop into	drop-put into	drop(4)
16		sashi-komu	means	insert	prick-put into	Matsumoto (1997: 173-4)
16		sasoi-komu	means	invite to	invite-put into	Matsumoto (1997: 173-4)
16		shibori-dasu	means	squeeze out	squeeze-take out	wring(3)
16		shimai-komu	means	stow in	put back-put into	stow(1)
16		sosogi-ireru	means	pour into	pour-put into	*

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
16		sui-komu	means	suck into	suck-put into	Matsumoto (1997: 173-4)
16		sukui-ageru	means	scoop up	scoop-raise	scoop(3), spoon(3)
16		sukui-dasu	means	scoop out	scoop-take out	scoop(3)
16		suri-komu	means	rub into	rub-put into	rub(on, into)(7), anoint(8)
16		tataki-komu	means	hammer into	hit-put into	bang(3), hammer(3)
16		tataki-otosu	means	hit down	hit-drop	Matsumoto (1997: 173-4)
16		toji-komu	means	file in	file-put into	file(10)
16		tori-ageru	means	lift	take-put into	Matsumoto (1997: 173-4)
16		tori-ireru	means	put into	take-put into	Matsumoto (1997: 173-4)
16		tori-komu	means	put into	take-put into	Matsumoto (1997: 173-4)
16		tori-orosu	means	take down	take-drop	Matsumoto (1997: 173-4)
16		tou.ka-suru	CHI	throw down	throw.lower-do	Matsumoto (1997: 175)
16		tou.nyuu-suru	CHI	throw into	throw-put into-do	Matsumoto (1997: 175)
16		tsugi-komu	means	pour into	pour-put into	pour(5)
16		tsumami-ageru	means	pick up	pick-raise	Matsumoto (1997: 173-4)
16		tsume-komu	means	cram into	cram-put into	stow(1), ram(3), squeeze(3), tuck(3), pack(7), pump(into)(7), stuff(7), pad(8), jam(into)(7), load(with)(7), crowd(7), cram(7)
16		tsumi-ageru	means	pile up	pile-raise	pile(with)(7), stack(with)(7)
16		tsumi-komu	means	load into	load-put into	load(7)
16		tsure-komu	means	bring into	bring-put into	Matsumoto (1997: 173-4)
16		tsuri-ageru	means	lift by hanging	hang-raise	hoist(4)
16		tsuri-ageru	means	lift by fishing	fish-raise	land(10)
16		tsutsumi-komu	means	wrap in	wrap-put into	roll(6)
16		uchi-ageru	means	hit up	hit-raise	Matsumoto (1997: 173-4)
16		uchi-kaesu	means	hit back	hit-return	Matsumoto (1997: 173-4)
16		uchi-komu	means	drive into	hit-put into	ram(3), hammer(3)
16		uchi-komu	means	shoot into	shoot-put into	lodge(1)
16		uchi-otosu	means	shoot down	shoot-drop	Kojien p. 231
17		hari-tsukeru	means	stick into	stick-attach	stick(on, in)(7), plaster(7)
17		huki-kakeru	means	spray	spray-shower	spray(7), squirt(with)(7)
17		huri-kakeru	means	sprinkle	shake-shower	shake(3), dust(7), sprinkle(7), flour(9), pepper(9), powder(9), sugar(9), salt(9)

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
17		huri-maku	means	sprinkle	spray-scatter	perfume(9)
17		kazari-tsukeru	means	decorate to	decorate-attach	Matsumoto (1997: 173-4)
17		kosuri-tsukeru	means	rub into	rub-apply	rub(on, into)(7)
17		maki-tsukeru	means	wind on/to	wind-attach	coil(6), curl(6), loop(6), twist(6), wind(6), wreathe(9)
17		mori-tsukeru	means	dish up	heap-apply	JSD p. 395
17		motase-kakeru	means	lean against	lean-put on	lean(2)
17		nade-tsukeru	means	plaster	stroke-attach	plaster(9)
17		nasuri-tsukeru	means	rub into	rub-apply	rub(with)(7)
17		nui-tsukeru	means	sew onto	sew-attach	sew(on, onto)(7)
17		nuri-tsukeru	means	dab on	smear-apply	dab(on)(7), daub(7), smear(7), coat(8)
17		oi-tsumeru	means	chase into	chase-pack	tree(10)
17		ooi-kabuseru	means	cover	cover-put over	GJD p. 264
17		oshi-nagasu	means	sweep away	push-pour	sweep(3)
17		oshi-tsukeru	means	force on	push-attach	push(3)
17		tate-kakeru	means	stand against	stand-put on	lean(2), stand(2)
17		tsuki-tateru	means	lodge on	stab-stand	lodge(1)
17		uchi-tsukeru	means	pound into	hit-attach	pound(3)
17		ue-tsukeru	means	implant	plant-attach	impregnate(8)
17		yaki-tsukeru	means	attach by burning	burn-attach	Matsumoto (1997: 173-4)
18		ooi-kakusu	means	cover (up)	cover-hide	wrap(in)(7), shroud(8)
18		ooi-tsutsumu	means	cover	cover-wrap	wrap(in)(7)
20	1	hakobi-saru	means	carry away	carry-go away	sweep(3)
20	1	hakobu	simple	carry		channel(3)
20	1	katsugu	simple	carry		shoulder(10)
20	1	ninau	simple	carry		shoulder(10)
20	1	okuri-tsukeru	dev2	send	send impolitely	Kojien p. 347
20	1	okuru	simple	give		endow(8)
20	1	ou	simple	carry		shoulder(10), shoulder(10)
20	1	seou	simple	carry		sling(1)
20	1	utsusu	simple	transfer		siphon(3), infect(8)
20	2	ataeru	simple	give, supply		vest?(7), shower(with)(7), bed(10), berth(10), salt(9)

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
20	2	ategau	simple	give		shelter(10)
20	2	azukeru	simple	entrust		lodge(1), lodge(10), bank(10)
20	2	ho.jyuu-suru	CHI	replenish	supplement.fill-do	replenish(8)
20	2	hu.yo-suru	CHI	grant, give	give.give-do	vest?(7), endow(8)
20	2	ki.hu-suru	CHI	contribute	give.give-do	endow(8)
20	2	ki.sou-suru	CHI	denote, present	give.give-do	endow(8)
20	2	kyou.kyuu-suru	CHI	provide	offer.supply-do	stock(with)(7)
20	2	kyuu.sui-suru	CHI	supply with water	supply.water-do	Matsumoto (1997: 176)
20	2	kyuu.yu-suru	CHI	supply with oil	supply.oil-do	Matsumoto (1997: 176)
20	2	sazukeru	simple	give, grant		endow(8)
20	2	tei.kyou-suru	CHI	offer	offer.offer-do	billet(10)
20	2	yo.kin-suru	CHI	deposit	entrust.money-do	bank(10) also Matsumoto (1997: 176)
20	3	ami-awaseru	means	combine interweaving	weave-combine	interweave(8)
20	3	kumi-awaseru	means	combine	put together-combine	interlace(8)
20	3	mazeru	simple	mix		interlard(8), drug(9)
20	3	ori-mazeru	means	mix by interweaving	weave-mix	interlace(8), interweave(8)
20	3	tsugu	simple	connect		putty(9)
20	3	tsunagu	simple	connect, tie		yoke(9), festoon(9), harness(9), leash(9)
20	4	butsukeru	simple	hit		ram(3)
20	4	sasu	simple	stab		stick(7), fork(10), skewer(10), spit(10), prick?(7)
20	4	tataku	simple	pat		dab(with)(7)
20	4	toosu	simple	thread		string(10)
20	4	tsuki-ateru	means	ram	prick-hit	ram(3)
20	4	tsuki-sasu	pair	stick	prick-prick	stick(7)
20	4	utsu	simple	hammer		shoe(9)
20	5	nage-suteru	means	throw away	throw-throw away	dump(3)
20	5	suteru	simple	throw away		dump(3)
20	6	horu	simple	dig		groove(9)
20	6	huku	simple	wipe		wipe(3)
20	6	kosuru	simple	rub		rub(7), rosin(9)
20	6	migaku	simple	polish		polish(9), rub(with)(7), wax(9), sand(9)
20	6	nuguu	simple	wipe		wipe(3)
20	6	shiboru	simple	wring		squish(3)

APPENDIX E. Levin's classification of verbs of removing (Levin 1993: 122-132)

10.1   *Remove* Verbs (*dismiss*, *remove*, *eliminate*)

ex.   *Doug removed the smudges from the tabletop.*

(i)   they relate to the removal of an entity from a location
(ii)   they express one of their arguments (location) with a prepositional phrase headed by *from*
(iii)   they can also take *from* followed by one of a variety of locative prepositions
        ex.   *Doug removed the smudges from around the sink.*
(iv)   most of them cannot take the prepositions *out of* or *off of*
        ex.   **Doug removed the smudges out of the drawer.*
(v)   each of them imposes particular restrictions on the set of possible direct objects
(vi)   they do not allow the locative alternation
        ex. a. *Doug removed the smudges from the tabletop.*
            b. **Doug removed the tabletop of smudges.*

10.2   *Banish* Verbs (*banish*, *deport*, *recall*)

ex.   *The king banished the general from the army.*

(i)   they relate to the removal of an entity, typically a person, from a location
(ii)   The location argument is expressed in a prepositional phrase headed by the preposition *from*.
(iii)   they do not allow any of the other prepositions such as *out*, *off*, or a combination of *from* and another preposition
 (iv)   they allow *to* phrases as well as *from* phrases, though not simultaneously
        ex.   **The king banished the general from the palace to a mountain fortress.*
(v)   they do not allow the locative alternation

10.3   *Clear* Verbs (*clear*, *clean*, *empty*)

ex.   *Doug cleared dishes from the table.*

(i)   they relate to the removal of a substance from a location but in some of their uses they are better characterised as verbs of change of state
(ii)   they allow the (transitive) locative alternation
        ex. a. *Doug cleared dishes from the table.* (locative variant)
            b. *Doug cleared the table of dishes.* (*of* variant)
                (unlike *spray/load* verbs, they take the preposition *of*)
(iii)   Most of them (except *clean*) show the causative/inchoative alternation
        ex. a. *The strong winds cleared the skies.*

        b. *The skies cleared.*

(iii)   they allow the (intransitive) locative alternation
        ex. a. *The sky cleared* (*?of clouds*).
           b. *Clouds cleared from the sky.*

(iv)   the state that each of these verbs lexicalises is a state that can hold of a "location" as a result of removing something from that location

(v)   when they refer to possessional deprivation, they take *from* in the locative variant, but when they describe the removal of an entity from a location, they may take a variety of locative prepositions

(vi)   the location argument receives the "holistic" interpretation

10.4   *Wipe* Verbs

10.4.1 Manner Subclass (*scrape, wipe, wash*)

ex.   *Brian wiped the fingerprints from the counter.*
       Brian wiped the fingerprints from inside/outside/under the cupboard.

(i)   they relate to removing things from surfaces or containers

(ii)   they participate in the locative alternation and show the "holistic/partitive" effect but they do not allow an *of* phrase when the location is the direct object
        ex. a. *Brian wiped the fingerprints from the counter.*
           b. *Brian wiped the counter* (**of fingerprints*).

(iii)   they lexicalise a manner or means of removal

(iv)   most of them in their basic meanings are probably not verbs of removing. Since some of the manner or means that are part of the meanings of these verbs are specifically associated with removing things from surfaces or containers, these verbs show properties of verbs of removing.

(v)   verbs whose meaning involves some manners or means that may be associated with putting things on surfaces or in containers as well as with removing things from surfaces or containers can be used both as verbs of putting and verbs of removing

(vi)   some of them allow the unspecified object alternation
        ex. a. *Brian was wiping the counter.*
           b. *Brian was wiping.*

10.4.2 Instrument Subclass (*brush, rake, shovel*)

ex.   *Carla shoveled the snow from the walk.*
       Carla shoveled the snow from under/near/among the bushes.

(i)   they are zero-related to a noun that is the name of an instrument. These verbs in their most basic meaning probably refer to using the instrument they take their name from in a conventional way. Since many of these instruments are used for removing things from surfaces or containers, they show properties of verbs of removing.

(ii)   they relate to removing things from surfaces or containers

(iii)   they participate in the locative alternation and show the "holistic/partitive" effect but they do not allow an *of* phrase when the

location is the direct object

    ex. a. *Carla shoveled the snow from the walk.*

       b. *Carla shoveled the walk (*of snow).*

When the location is the direct object, it receives the "holistic" interpretation.

(iii)   some of them can be used as verbs of putting

(iv)   some of them allow the unspecified object alternation

    ex. a. Carla was shoveling the walk.

       b. Carla was shoveling.

10.5   Verbs of Possessional Deprivation: *Steal* Verbs (*abduct, pilfer, steal*)

ex.   *The thief stole the painting from the museum.*

(i)   they primarily describe the removal of something from someone's possession; the previous possessor or a location associated with this possessor is expressed in a *from* prepositional phrase.

(ii)   they can also take benefactive *for* phrases to indicate the person on whose behalf the removal was done, but they do not participate in the benefactive alternation.

    ex. a. *The thief stole the painting for Mr. Smith.*

       b. **The thief stole Mr. Smith the painting.*

(iii)   they are found in a syntactic frame that resembles the location variant of the locative alternation, but they do not participate in the locative alternation.

    ex. a. *The thief stole the painting from the museum.*

       b. **The thief stole the museum of the painting.*

(iv)   some of these verbs can also be used as verbs of obtaining because in many situations in which someone obtains something, someone else loses possession of that thing.

10.6   Verbs of Possessional Deprivation: *Cheat* Verbs (*cheat, cure, deprive*)

ex.   *The doctor cured Pat of pneumonia.*

(i)   they typically describe depriving someone/something of an inalienable possession (in a broad sense).

(ii)   they are found in one of the two syntactic frames shown by the form of the locative alternation (*of* variant) but it does not participate in the locative alternation. The direct object is said to receive the "holistic" interpretation.

    ex. a. **The doctor cured pneumonia from Pat.*

       b. *The doctor cured Pat of pneumonia.*

(iii)   a few of them allow the preposition *to* to alternate with *out of*

    ex.   *The swindler cheated Pat of her fortune.*

           The swindler cheated Pat out of her fortune.

10.7   *Pit* Verbs (*bark, pit, stone*)

ex.   *The cook boned the fish.*

(i.e., The cook removed the bones from the fish.)

(i)   They all have zero-related nominals. These nominals could be found as X as in "remove X from (something)." Moreover, they are considered to be an inalienably possessed part of an animal or plant.

(ii)   The direct object of these verbs receives the "holistic" interpretation associated with the *with/of* variant of the locative alternation: in the above sentence, it is interpreted that all of the bones have been removed.

(iii) They do not allow a cognate *of* phrase.
ex. a.   *The cook boned the fish of bones.
       b.   *The cook boned the fish of its backbone.

10.8   *Debone* Verbs (*debark, debone, degrease*)

ex.   *The cook deboned the fish.*
       (i.e., The cook removed the bones from the fish.)

(i)   they all have related nominals which form the verbs with the prefix *de-*. These verbs are paraphrased as "remove X from (something)," where X is the noun related to the verb.

(ii)   the nouns that these verbs are based on might for the most part be considered to be an inalienably possessed part of an animal or plant (in a broad sense).

(iii) the direct object of the verbs receives the "holistic" interpretation associated with the *with/of* variant of the locative alternation as *pit* verbs.

(iv)   they do not allow a cognate *of* phrase.
ex.   *The cook deboned the fish of all its bones.*

10.9   *Mine* Verbs (*mine, quarry*)

ex.   *The men mined the gold.*
       (i.e., The men removed the gold from the mine.)

(i)   they have zero-related nominals; the nouns name locations that one typically removes something from.

(ii)   a cognate source phrase may be found if it expresses further information about the source.
ex.   *The men were able to mine more gold from the abandoned mine.*

APPENDIX F.   List of classes of verbs of removing in Japanese

CLS	Scls	Type Name	No	FA-type linkings			GA-type linkings		Goal	Other s.pattern	aspect	prominent syntactic or semantic characteristics	relations bet. F and G
				A-linking	G-linking	FA-linking	RA-linking	GA-linking					
1	1	*tori-nozoku* 'remove'	43	OK	depends	OK (mostly)	*	*	*		punctual/ extended	(1) general removing verbs, (2) most of them allow FA-linking	(extended) locational
1	2	*hiku* 'subtract'	6	OK	*	*	*	*	*		punctual/ extended	(1) mostly, they are verbs of subtraction, (2) does not allow G-linking	whole-part or extended locationl
2	1	*dasu* 'put out'	4	OK	?	*	*	*	OK	path pattern	punctual	(1) are productive as V2 components, (2) spatial transfer with a specified direction	locational
2	2	*nokeru* 'put aside'	2	OK	?	??	*	*	OK	path pattern	punctual	(1) can be V2 components, (2) spatial transfer with a specified direction	locational
3		*katazukeru* 'clear'	1	OK	OK	OK	*	OK	OK	path pattern	extended	(1) manifest the locative alternation	locational
4		*haku* 'sweep'	17	??	OK	OK	*	OK	*		extended	(1) denote means/manner of activity of removing impurities, (2) compounded as V1	locational (impurities)
5		*muku* 'peel'	22	??	OK	OK (some)	*	OK	*		extended	(1) refer to activity of separation, (2) compounded as V1	whole-part
6		*hagasu* 'peel'	4	OK	OK	OK	*	*	*		extended	(1) similar to type 1, but entails a certain manner/means of removing	locational (attachment)

CLS	Scls	Type Name	No	FA-type linkings			GA-type linkings		Goal	Other s.pattern	aspect	prominent syntactic or semantic characteristics	relations bet. F and G
				A-linking	G-linking	FA-linking	RA-linking	GA-linking					
7	1	*arau* 'wash'	5	*	*	*	*	OK	*		extended	(1) denote activity of cleaning, (2) can be used as V1 compound	locational (impurities)
7	2	*kiyomeru* 'cleanse'	5	*	*	*	*	OK	*		punctual (extended)	(1) used as change of state verbs, (2) compounded as V2	locational (impurities)
8	1	*nusumu* 'steal'	37	OK	OK	OK	*	*?	*		punctual	(1) verbs of possessional deprivation	(extended) possessional
8	2	*dak.kan-suru* 'recapture'	5	OK	*	OK	*	*	*		punctual	(1) verbs of possessional regaining, (2) do not allow G-linking	possessional
9		*tsui.hou-suru* 'expel'	11	OK	OK	OK	*	*	OK	path pattern	punctual	(1) include a lot of frozen compounds, (2) denote causing animate's change of location (with/without its willingness)	locational
10		*ha.mon-suru* 'excommunicate'	8	OK	??	*	*	*	*		punctual	(1) denote more abstract expel of people from social organization or social status etc.	(extended) locational, identifica-tional
11		*kai.hou-suru* 'liberate'	2	OK	*	*	*	*	*		punctual	(1) denote release of somebody from an abstract notion	extended locational
12		*toku* 'relieve'	5	*	OK	*	OK	*	*		punctual	(1) take RA-linking, (2) denote release from abstract notion	extended possessional

CLS	Scls	Type Name	No	FA-type linkings			GA-type linkings		Goal	Other s.pattern	aspect	prominent syntactic or semantic characteristics	relations bet. F and G
				A-linking	G-linking	FA-linking	RA-linking	GA-linking					
13		*kai.nin-suru* 'dismiss'	5	*	OK	OK	??	??	*		punctual	(1) most of them are originally 'figure' incorporation type, (2) denote "dismissal"	identifica-tional
14		*sen.patsu-suru* 'wash hair'	2	*	*	*	*	OK	*	intransitive	extended	(1) has intransitive version, (2) ground incorporation	locational (impurities)
15		*hai.sui-suru* 'drain water'	2	OK	OK	OK	*	*	OK	path, *GO-linking	extended	(1) figure incorporation	locational
16		*jo.setsu-suru* 'remove snow'	23	OK	OK	OK	*	OK	*	*GO-linking	extended	(1) figure incorporation with alternative linkings	locational
17		*nuki-dasu* 'pull out'	58	OK	?	*	*	*	OK (some)	path pattern	punctual/ extended	(1) means compound with specified direction	(extended) locational
18		*arai-otosu* 'wash-remove'	39	OK	OK	OK (some)	*	*	*		punctual/ extended	(1) means compound of FA-type linking	varies
19		*haki-kiyomeru* 'sweep-cleanse'	2	*	*	*	*	OK	*		punctual	(1) means compound of GA-type linking	locational (impurities)

APPENDIX G.   List of verbs of removing in Japanese

The convention follows that of Appendix D for verbs of putting.

(1) The major topics in the list:

[CLS]	Class of verbs (of putting)
[Scls]	Subclass of verbs (of putting) (or type of events)
[Japanese]	Japanese verbs
[Vtype]	Type of Verb
[English]	English translation equivalent
[Direct Translation]	Direct and detailed translation
[English Levin]	English Corresponding Verbs in Levin (1993)

The following is added information that is needed in order to read the list.

[CLS] (and [Scls]): class of verbs

As with verbs of putting, I also leave in the list verbs of other classes that are

semantically close to verbs of removing.

Type 20-1—verbs of sending and carrying
Type 20-2—verbs of possessional transfer
Type 20-3—verbs of separating
Type 20-4—verbs of throwing
Type 20-5—verbs of catching
Type 20-6—verbs of mental request

[Vtype]: Type of verb

There is one type of verbs which are found in verbs of removing.

Japansese VN *suru*—JAP

472

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
1	1	bas.sui-suru	CHI	extract	pull out.element-do	extract(5), cull(6)
1	1	boku.metsu-suru	CHI	exterminate	hit/knock.destroy-do	eradicate(1)
1	1	bun.ri-suru	CHI	separate	separate.separate-do	abstract(1), separate(1)
1	1	chuu.shutsu-suru	CHI	extract, sample	pull out.take out-do	distill(4.1) also Matsumoto (1997: 175)
1	1	habuku	simple	omit		JSD p. 1084
1	1	hai.jo-suru	CHI	remove, exclude	remove.remove-do	clear(3)
1	1	hai.seki-suru	CHI	reject, boycott	push aside.push aside-do	ostracize(1)
1	1	haisuru	simple	remove		JSD p. 145
1	1	hanasu	simple	separate		disengage(1)
1	1	harau	simple	get rid of, remove		dust(4.1), whisk(4.1)
1	1	hazusu	simple	remove, take off		disengage(1)
1	1	hedateru	simple	separate		separate(1), sever(1)
1	1	hiki-hanasu	frozen	separate	pull-separate	separate(1), sever(1), wean(6)
1	1	hus.shoku-suru	CHI	wipe away	sweep.wipe-do	JSD p. 147
1	1	is.sou-suru	CHI	clear away, root out	one.sweep-do	extirpate(1), sweep(4.1)
1	1	jo.gai-suru	CHI	exclude, omit	remove.exclude-do	omit(1)
1	1	jo.kyo-suru	CHI	remove, eliminate	remove.remove-do	eliminate(1), rid(6)
1	1	kai.jo-suru	CHI	disarm, cancel	relieve.remove-do	disarm(6)
1	1	kai.metsu-suru	CHI	annihilate	destroy.destroy-do	JSD p. 1084
1	1	kaki-otosu	frozen	omit	write-remove	omit(1)
1	1	kesu	simple	erase		delete(1), eradicate(1), erase(4.1), soak(4.1)
1	1	kon.zetsu-suru	CHI	eradicate	root.exterminate-do	eradicate(1), extirpate(1), uproot(1)
1	1	ku.jo-suru	CHI	get rid of	drive away.remove-do	worm(7), delouse(8)
1	1	mas.satsu-suru	CHI	eliminate	erase.kill-do	JSD p. 1082
1	1	mas.shou-suru	CHI	delete	erase.erase-do	expunge(4.1)
1	1	nozoku	simple	exclude, remove		eliminate(1), leach(4.1), purge(4.1), weed(4.1), cure(6), divest(6), purify(6), hull(7), pip(7), string(7), tassel(7), weed(7), debug(8), defog(8), degas(8), delouse(8),
1	1	nuku	simple	remove		soak(4.1)
1	1	otosu	simple	remove		soak(4.1)
1	1	saku.jo-suru	CHI	delete	delete.remove-do	delete(1), eliminate(1), excise(1), expunge(4.1)
1	1	shou.kyaku-suru	CHI	eliminate	erase.drive away-do	JSD p. 1082

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
1	1	shou.kyo-suru	CHI	eliminate	erase.remove-do	JSD p. 1082
1	1	sou.metsu-suru	CHI	exterminate	sweep.destroy-do	JSD p. 147
1	1	sou.tou-suru	CHI	mop up, clear	sweep.attack-do	JSD p. 146
1	1	suteru	simple	abandon, throw away		dismiss(1), divest(6)
1	1	tek.kyo-suru	CHI	remove	throw away.remove-do	JSD p. 146
1	1	tep.pai-suru	CHI	abolish	throw away.remove-do	JSD p. 145
1	1	topparau	simple	remove		JSD p. 145
1	1	tori-harau	dev1	clear away	take-remove	remove(1)
1	1	tori-kesu	dev1	cancel, revoke	take-delete	void(6)
1	1	tori-nozoku	dev1	remove	take-remove	dislodge(1), lop(1), remove(1), banish(2), clear(3), distill(4.1), prune(4.1), scrub(4.1), skim(4.1), smooth(4.1), strain(4.1), strip(4.1), sweep(4.1), weed(4.1), filter(4.2), shovel(4.2), exorcise(5), cure(6), free(6), purify(6), relieve(6), rid(6), unburden(6), pit(7), pulp(7), seed(7), stem(7), worm(7), debone(8), debug(8)
1	1	tori-saru	pair	remove	remove-remove	remove(1), strip(6), pith(7), dehorn(8)
1	1	toru	simple	remove, take, steal		eradicate(1), dust(4.1), weed(4.1), iron(4.2), rake(4.2), snatch(5), bleed(6), swindle(6), bone(7), gill(7), gut(7), head(7), hull(7), husk(7), louse(7), rind(7), shell(7), string(7), stone(7), weed(7), defrost(8)
1	1	zetsu.metsu-suru	CHI	exterminate	all.destroy-do	uproot(1)
1	2	genjiru	simple	reduce		substract(1)
1	2	hiku	simple	subtract		draw(1), substract(1)
1	2	kou.jo-suru	CHI	subtract	subtract.remove-do	subtract(1)
1	2	sashi-hiku	dev1	deduct	prick-subtract	JSD p. 1081
1	2	sorasu	simple	avert		withdraw(1)
1	2	yori-suguru	pair	select	select-select	winnow(4.1)
2	1	dasu	simple	take out		empty(3), void(6)
2	1	kaesu	simple	return		JSD p. 1018
2	1	modosu	simple	return		JSD p. 1018
2	1	orosu	simple	bring down, unload		discharge(1), unburden(6)
2	2	dokeru	simple	put aside/away		JSD p. 145
2	2	nokeru	simple	put aside/away		JSD p. 145

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
3		katazukeru	simple	clear, put away		clear(3), free(6)
4		kosuru	simple	rub		rub(4.1), scrape(4.1)
4		haku	simple	sweep		sweep(4.1)
4		hataku	simple	dust, beat		whisk(4.1)
4		huku	simple	wipe		rub(4.1), swab(4.1), wipe(4.1), mop(4.2), mop(4.2), sponge(4.2), towel(4.2)
4		nameru	simple	lick		lick(4.1)
4		nuguu	simple	wipe		mop(4.2)
4		tokasu	simple	comb		comb(4.2)
5		bas.sai-suru	CHI	deforest, cut down	cut down.take/pick-do	deforest(8)
5		sukuu	simple	scoop		shovel(4.2)
5		chigiru	simple	tear		JSD p. 51
5		eguru	simple	scoop, gouge		JSD p. 52
5		hiru	simple	winnow		winnow(4.1)
5		horu	simple	dig		mine(9)
5		karu	simple	reap, cut		shear(4.2), fleece(6)
5		kezuru	simple	chip, curtail, sharpen		shave(4.1)
5		kiru	simple	cut		strain(4.1), shear(4.2), head(7), poll(7), tail(7)
5		kizamu	simple	cut		JSD p. 51
5		kosu	simple	filter		strain(4.1), filter(4.2)
5		kurinuku	simple	gouge out		JSD p. 52
5		kuru	simple	gouge		JSD p. 52
5		muku	simple	peel		bark(7), husk(7), peel(7), pod(7), rind(7), scale(7), shuck(7), skin(7)
5		ro.ka-suru	CHI	filter	filter.pass-do	filter(4.2)
5		sai.kutsu-suru	CHI	mine	take/pick.dig-do	mine(9)
5		setsu.dan-suru	CHI	cut, disconnect	cut.sever-do	sever(1)
5		shiboru	simple	squeeze, wring		wring(4.1), milk(6), milk(7)
5		sogu	simple	chip off		JSD p. 52
5		soru	simple	shave		shave(4.1)
5		suu	simple	suck		suck(4.1)
5		tatsu	simple	cut		JSD p. 51

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
6		hagasu	simple	peel		strip(4.1)
6		hagu	simple	strip, peel, skin, bark		divest(6), bark(7), scalp(7), skin(7)
6		kiru	simple	drain off		drain(3)
6		nuku	simple	pull out		bleed(6), beard(7), bone(7), core(7), gut(7), milk(7), degas(8)
7	1	arau	simple	wash, clean		scrub(4.1), hose(4.2), sponge(4.2)
7	1	migaku	simple	polish		buff(4.1), polish(4.1), rub(4.1), scrub(4.1), file(4.2), sandpaper(4.2)
7	1	sei.sou-suru	CHI	clean	cleanse.sweep-do	JSD p. 413
7	1	sou.ji-suru	CHI	clean	sweep.remove-do	sweep(4.1), clean(3), mop(4.2), vaccuum(4.2)
7	1	togu	simple	sharpen, polish		buff(4.1), file(4.2)
7	2	jou.ka-suru	CHI	purify, clean up	purify.change-do	cleanse(6)
7	2	jou.ryuu-suru	CHI	distill	steam.take elements-do	distill(4.1)
7	2	jun.ka-suru	CHI	purify	purity.change-do	JSD. 1064
7	2	kiyomeru	simple	purify, cleanse		purge(4.1), purge(4.1), cleanse(6)
7	2	tan.sui.ka-suru	CHI	desalt	non-salt-water-change-do	desalt(8)
8	1	bos.shuu-suru	CHI	confiscate	confiscate.put away-do	confiscate(5), impound(5), seize(5)
8	1	bundoru	simple	pilfer		JSD p. 120
8	1	chaku.huku-suru	CHI	embezzle	wear.dress-do	embezzle(5), grab(5)
8	1	das.shu-suru	CHI	capture	steal.take-do	GJD p. 1328
8	1	datsu.ryaku-suru	CHI	plunder	steal.snatch-do	GJD p. 1330
8	1	gomakasu	simple	pocket, cheat		wangle(5), weasel(5), cheat(6)
8	1	gou.datsu-suru	CHI	rob, plunder	strong.steal-do	pirate(5), snatch(5), rob(6)
8	1	haku.datsu-suru	CHI	deprive, forfeit	strip.steal-do	divest(6), strip(6)
8	1	hit-takuru	frozen	snatch	pull-tuck in	wrench(1), grab(5), nab(5), snatch(5)
8	1	humi-taosu	frozen	bilk	step on-knock down	bilk(6)
8	1	hundakuru	simple	snatch		relieve(6)
8	1	hyou.setsu-suru	CHI	plagiarise	snatch.steal-do	lift(5), plagiarize(5)
8	1	in.you-suru	CHI	quote	pull.use-do	extract(5)
8	1	kadowakasu	simple	abduct, kidnap		abduct(5)
8	1	kapparau	simple	snatch		liberate(5), swipe(5)
8	1	kasumeru	simple	pilfer		JSD p. 120
8	1	kusuneru	simple	pilfer		filch(5), pilfer(5)
8	1	maki-ageru	frozen	cheat	roll-raise	pinch(5), bleed(6), cheat(6), fleece(6), milk(6), con(6), gull(6)

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
8	1	man.biki-suru	JAP	steal	ten thousand.pulling-do	JSD p. 611
8	1	mitsu.yu-suru	CHI	smuggle	secret.carry-do	smuggle(5)
8	1	nugasu	simple	strip of clothes		divest(6)
8	1	nusumu	simple	steal, plagiarise		abstract(1), cop(5), flog(5), liberate(5), pinch(5), purloin(5), rustle(5), sneak(5), steal(5), swipe(5), take(5), thieve(5), thieve(5), plunder(6), relieve(6), rob(6), rob(6)
8	1	ou.ryou-suru	CHI	embezzle	wicked.get-do	embezzle(5), plunder(6)
8	1	ou.shuu-suru	CHI	confiscate	push.put away-do	confiscate(5), impound(5), seize(5)
8	1	ryaku.datsu-suru	CHI	plunder	snatch.steal-do	pirate(5), despoil(6), plunder(6), ransack(6)
8	1	sa.shu-suru	CHI	swindle	deceive.take-do	defraud(6)
8	1	sarau	simple	carry off		sweep(4.1), kidnap(5)
8	1	sashi-osaeru	frozen	distrain, seize	prick-push	seize(5)
8	1	seshimeru	simple	swindle		wangle(5)
8	1	set.tou-suru		steal	steal.steal-do	JSD p. 611
8	1	shik.kei-suru	CHI	steal	make mistake.respect-do	filch(5)
8	1	shuu.datsu-suru		steal	put away.steal-do	JSD p. 119
8	1	tori-ageru	frozen	deprive, confiscate	take-raise	withdraw(5), wrest(5), disarm(6), dispossess(6)
8	1	tou.you-suru	CHI	plagiarise	steal.use-do	lift(5), plagiarise(5), steal(5)
8	1	ubau	simple	take away		bereave(6), denude(6), deprive(6), drain(6), ease(6), rob(6), strip(6)
8	1	yoko.dori-suru	JAP	embezzle	wicked.taking-do	JSD p. 120
8	1	yuu.kai-suru	CHI	kidnap	deceive.abduct-do	abduct(5), kidnap(5)
8	2	chou.hatsu-suru	CHI	requisition, commandeer	collect.take out-do	confiscate(5)
8	2	dak.kai-suru	CHI	recapture	steal.return-do	recover(5), rescue(5)
8	2	dak.kan-suru	CHI	recapture	steal.return-do	JSD p. 121
8	2	kai.huku-suru	CHI	regain, recover	return.return-do	recover(5), regain(5)
8	2	kai.shuu-suru	CHI	recover, withdraw	return.put away-do	retrieve(5), withdraw(5)
9		hanasu	simple	set free, release		JSD p. 83
9		oi-dasu	frozen	drive out	chase-take out	eject(1), extrude(1), expel(2), flush(4.1), exorcise(5), dispossess(6)
9		oi-harau	frozen	drive away	chase-remove	dislodge(1), shoo(1), sweep(4.1), exorcise(5)
9		oi-tateru	frozen	chase	chase-stand	evict(1), uproot(1)
9		tsui.hou-suru	CHI	expel, banish	chase.release-do	ostracize(1), banish(2), deport(2), purge(6)

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
9		ke-chirasu	frozen	drive away	kick-scatter	JSD p. 145
9		oi-chirasu	frozen	drive away	chase-scatter	JSD p. 145
9		oi-otosu	frozen	drive away	chase-drop	JSD p. 145
9		opparau	simple	drive away		JSD p. 145
9		shou.kan-suru	CHI	recall	call.return-do	recall(2), redeem(5)
9		uchi-harau	frozen	drive away	hit-remove	JSD p. 145
10		geki.tai-suru	CHI	repulse, reject	attack.drive back-do	dislodge(1)
10		hou.chiku-suru	CHI	throw out	release.drive away-do	JSD p. 146
10		jo.mei-suru	CHI	oust, expel	remove.name-do	excommunicate(1), expel(2) also Matsumoto (1997: 177)
10		jo.seki-suru	CHI	strike off, expel	remove.membership-do	GJD p. 1075
10		ku.chiku-suru	CHI	expel, drive out	drive away.drive away-do	JSD p. 147
10		shirizokeru	simple	oust, remove		dismiss(1)
10		ha.mon-suru	CHI	excommunicate	break.collegue-do	excommunicate(1)
10		shaku.hou-suru	CHI	release	release.release-do	discharge(1), liberate(5), free(6)
11		hou.men-suru	CHI	release, acquit	release.exempt-do	absolve(6), acquit(6)
11		kai.hou-suru	CHI	release, liberate	relieve.release-do	discharge(1), disengage(1), emancipate(5), liberate(5), acquit(6), disabuse(6), disencumber(6), exonerate(6), free(6), rid(6)
12		men.jo-suru	CHI	exempt	exempt.remove-do	discharge(1), absolve(6), exonerate(6)
12		menzuru	simple	exempt		JSD p. 591
12		sha.men-suru	CHI	pardon	pardon.exempt-do	pardon(6)
12		toku	simple	relieve		disengage(1)
12		toku.sha-suru	CHI	pardon	special.pardon-do	pardon(6)
13		hi.men-suru	CHI	dismiss, relieve	stop.exempt-do	JSD p. 590
13		kai.ko-suru	CHI	dismiss, discharge	relieve.employ-do	discharge(1), dismiss(1), remove(2)
13		kai.nin-suru	CHI	dismiss	relieve.duty-do	separate(1), recall(2), remove(2)
13		kai.shoku-suru	CHI	dismiss	relieve.job-do	JSD p. 590
13		men.shoku-suru	CHI	dismiss	exempt.job-do	dismiss(1), expel(2), remove(2)
14		sen.gan-suru	CHI	wash face	wash.face-do	JSD p. 412
14		sen.patsu-suru	CHI	wash hair	wash.hair-do	JSD p. 412
15		hai.ki-suru	CHI	exhaust gas, ventilate	put away/out.air-do	JSD p. 1048
15		hai.sui-suru	CHI	drain	put away/out.water-do	Matsumoto (1997: 177)
16		bas.shi-suru	CHI	remove stitches	pull out.thread-do	Matsumoto (1997: 177)

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
16		dak.koku-suru	CHI	thresh	remove.grain-do	GJD p. 1328
16		das.shi-suru	CHI	remove fat	remove.fat-do	GJD p. 1328
16		das.shoku-suru	CHI	decolorise	remove.color-do	Matsumoto (1997: 177)
16		das.shuu-suru	CHI	deodorise	remove.smell-do	GJD p. 1328
16		das.sui-suru	CHI	dehydrate	remove.water-do	Matsumoto (1997: 177)
16		datsu.en-suru	CHI	desalt	remove.salt-do	desalt(8)
16		jo.mou-suru	CHI	depilate	remove.hair-do	GJD p. 1079
16		jo.setsu-suru	CHI	clear of snow	remove.snow-do	Matsumoto (1997: 177)
16		jo.shitsu-suru	CHI	dehumidify	remove.dampness-do	Matsumoto (1997: 177)
16		jo.sou-suru	CHI	weed	remove.weed-do	Matsumoto (1997: 177)
16		jo.sou-suru	CHI	defrost	remove.frost-do	JSD p. 144
16		sai.seki-suru	CHI	quarry	pick/take.stone-do	quarry(9)
17		tori-kaesu	means	get back	take-return	regain(5)
17		arai-dasu	means	wash out, identify	wash-take out	GJD p. 72
17		arai-nagasu	means	wash away	wash-put away	wash(4.1)
17		eguri-dasu	means	scoop out	scoop-take out	Sakabikijiten p. 345
17		erabi-dasu	means	pick out	select-take out	Matsumoto (1997: 173-4)
17		hai.shutsu-suru	CHI	discharge	put out-take out	eject(1), expel(1) also Matsumoto (1997: 175)
17		hajiki-dasu	means	eject	eject-take out	eject(1)
17		haki-dasu	means	spew, disgorge	spew-take out	disgorge(1), expel(1)
17		hakobi-dasu	means	carry out	carry-take out	Matsumoto (1997: 173-4)
17		hakobi-saru	means	carry away	carry-go away	sweep(4.1), whisk(4.1), snatch(5)
17		hiki-dasu	means	draw, withdraw	draw-take out	draw(1), withdraw(1), extract(5), extort(5), winkle(5), milk(6)
17		hik-komeru	means	withdraw	draw-take in	withdraw(1)
17		hineri-dasu	means	squeeze out	squeeze-take out	squeeze(4.1)
17		hojikuri-dasu	means	dig out	dig-take out	Sakabikijiten p. 345
17		hori-dasu	means	dig out	dig-take out	extract(1)
17		hori-okosu	means	dig up	dig-raise	plow(4.2)
17		hou.shutsu-suru	CHI	spout, release	release.take out-do	Matsumoto (1997: 175)
17		houri-dasu	means	throw out	throw-take out	Sakabikijiten p. 345
17		hun.shutsu-suru	CHI	spout	spout.take out-do	eject(1)
17		kai-dasu	means	bail out	bail.take out-do	Sakabikijiten p. 344

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
17		kai-modosu	means	redeem	buy-return	redeem(5)
17		kaki-dasu	means	rake out	rake-take out	Sakabikijiten p. 344
17		kiki-dasu	means	get out of	listen-take out	pry(1)
17		kiri-dasu	means	quarry	cut-take out	quarry(9), JSD p. 51
17		koshi-dasu	means	filter out of	filter-take out	leach(4.1)
17		kumi-dasu	means	bail out	bail-take out	draw(1), bail(4.1)
17		mochi-dasu	means	take out	take hold of-take out	smuggle(5), sneak(5)
17		mochi-kaeru	means	take back	take hold of-return	GJD p. 2165
17		mochi-saru	means	take away	take hold of-go away	remove(1), whisk(4.1), take(5)
17		nagashi-dasu	means	flow out	flow-take out	drain(3)
17		nagashi-saru	means	flow away	flow-go away	scour(4.1)
17		nege-dasu	means	throw out	throw-take out	Matsumoto (1997: 173-4)
17		nugui-saru	means	wipe off	wipe-go away	wipe(4.1)
17		nuki-dasu	means	pull out, select from	pull out-take out	draw(1), distill(4.1)
17		nusumi-dasu	means	steal out	steal-take out	Matsumoto (1997: 173-4)
17		obiki-dasu	means	lure away	lure-take out	Matsumoto (1997: 173-4)
17		okuri-kaesu	means	send back	send-return	Matsumoto (1997: 173-4)
17		oshi-dasu	means	push out	push-take out	extrude(1)
17		oshi-nagasu	means	float down	push-pour away	sweep(4.1)
17		saguri-dasu	means	spy out	spy-take out	draw(1)
17		sasoi-dasu	means	ask out	invite-take out	Matsumoto (1997: 173-4)
17		shibori-dasu	means	squeeze out	squeeze-take out	extract(1), extrude(1), squeeze(4.1), wring(4.1)
17		shime-dasu	means	lock out	lock-take out	Sakabikijiten p. 345
17		sui-ageru	means	siphon up, pump	suck-raise	siphon(4.2)
17		sui-dasu	means	suck out	suck-take out	Sakabikijiten p. 344
17		tataki-dasu	means	kick out	hit-take out	flog(5)
17		tataki-otosu	means	knock down	hit-drop	Koujien p. 1587
17		teki.shutsu-suru	CHI	pick out, extract	pick out.take out-do	extirpate(1) also Matsumoto (1997: 175)
17		tori-dasu	means	take out, extract, pick out	take-take out	abstract(1), draw(1), extract(1), empty(3)
17		tori-modosu	means	get back	take-return	evict(1), reclaim(5), recover(5), regain(5), repossess(5), retrieve(5)
17		tsumami-dasu	means	throw out	pick-take out	extrude(1)

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
17		tsumi-dasu	means	ship out	load-take out	Sakabikijiten p. 345
17		tsure-dasu	means	take out	take-take out	Matsumoto (1997: 173-4)
17		tsure-modosu	means	take back	take-return	Matsumoto (1997: 173-4)
17		tsure-saru	means	take away	take-go away	remove(1), whisk(4.1)
17		uchi-otosu	means	shoot down	shoot-drop	GJD p. 191
17		yobi-dasu	means	tell to come	call-take out	Matsumoto (1997: 173-4)
17		yobi-modosu	means	recall	call-return	recall(2)
18		aogi-nozoku	means	remove by winnowing	winnow-remove	winnow(4.1)
18		arai-otosu	means	wash off	wash-remove	rinse(4.1), wash(4.1), sponge(4.2)
18		chigiri-toru	means	tear off	tear-remove	Matsumoto (1997: 173-4)
18		damashi-toru	means	defraud	deceive-take	extort(5), cheat(6), con(6), defraud(6), fleece(6), mulct(6)
18		eguri-toru	means	scoop out	scoop-remove	winkle(1)
18		hagashi-toru	means	peel off	peel-remove	scratch(4.1)
18		hagi-toru	means	strip off	strip-remove	strip(4.1), denude(6)
18		harai-nokeru	means	brush off	brush-put away	banish(2), brush(4.2)
18		harai-otosu	means	dust off	brush-remove	dab(4.1), brush(4.2)
18		hiki-nuku	means	pull out	pull-pull out	extract(1), uproot(1), pluck(4.1)
18		huki-toru	means	wipe off	wipe-remove	swab(4.1), wipe(4.1), mop(4.2)
18		huri-otosu	means	shake off	shake-remove	Matsumoto (1997: 173-4)
18		hurui-otosu	means	shake off	brandish-remove	winnow(4.1)
18		kaki-harau	means	rake off	rake-remove	rake(4.2)
18		kari-toru	means	cut down, reap	reap-remove	trim(4.1)
18		kezuri-otosu	means	shave off	file-remove	file(4.2)
18		kezuri-toru	means	shave off	file-remove	shave(4.1)
18		kiri-nuku	means	cut out	cut-pull out	JSD p. 51
18		kiri-otosu	means	cut off	cut-remove	lop(1), trim(4.1)
18		kiri-toru	means	cut out of	cut-remove	excise(1), prune(4.1), trim(4.1), gill(7), top(7), tail(7), pinion(7)
18		kosuri-otosu	means	scrape off	rub-remove	scrape(4.1)
18		kosuri-toru	means	scrape off	rub-remove	scour(4.1), scrape(4.1), scratch(4.1), scrub(4.1)
18		mogi-toru	means	pluck off	pluck-remove	wrench(1), pluck(4.1), wrest(5)
18		mushiri-toru	means	pluck off	pluck-remove	pluck(4.1)
18		nugui-toru	means	wipe off	wipe-remove	sponge(4.2)

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
18		nuki-toru	means	pull out, extract	pull out-take	abstract(1)
18		nusumi-toru	means	rob of	rob-take	purloin(5)
18		setsu.jo-suru	CHI	excise	cut.remove-do	extirpate(1)
18		shibori-toru	means	squeeze out	squeeze-remove	squeeze(4.1), wring(4.1), siphon(4.2), bleed(6), milk(6), sap(6)
18		sori-otoru	means	shave off	shave-remove	shave(4.1)
18		sui-toru	means	suck up	suck-take	suck(4.1), sponge(4.2)
18		sukui-toru	means	scoop up	scoop-take	skim(4.1)
18		susugi-otosu	means	rinse off	rinse-remove	rinse(4.1)
18		toki-hanasu	means	release	relieve-release	JSD p. 83
18		tsukami-toru	means	snatch	grab-take	seize(5)
18		tsumi-toru	means	remove by picking	pick-remove	pluck(4.1), trim(4.1)
18		ubai-toru	means	deprive	steal-remove	seize(5), rifle(6)
18		yori-nuku	means	select	select-pull out	cull(1)
18		yusuri-toru	means	extort from	extort-take	extort(5), mulct(6)
19		arai-kiyomeru	means	cleanse by washing	wash-cleanse	wash(4.1)
19		haki-kiyomeru	means	cleanse by sweeping	sweep-cleanse	Kageyama (1993: 105)
20	1	utsusu	simple	transfer		siphon(4.2)
20	2	hiki-watasu	dev1	deliver	pull-hand	extradite(2)
20	2	kaku.toku-suru	CHI	acquire	acquire.get-do	cop(5)
20	2	ukeru	simple	inherit, obtain		reap(1)
20	3	aogi-wakeru	means	separate by winnowing	winnow-separate	winnow(4.1)
20	3	bun.katsu-suru	CHI	divide	separate.divide-do	partition(1)
20	3	bun.pai-suru	CHI	distribute	separate.distribute-do	partition(1)
20	3	ku.bun-suru	CHI	divide	partition.divide-dp	parition(1)
20	3	shikiru	simple	partition		partition(1), separate(1)
20	3	wakeru	simple	divide		separate(1)
20	4	has.sha-suru	CHI	discharge, fire	emit.shoot-do	expel(1)
20	5	hit-tsukamaeru	dev1	seize	pull-seize	nab(5)
20	5	hit-tsukamu	dev1	grab	pull-grab	grab(5), nab(5)
20	5	tai.ho-suru	CHI	arrest	reach.catch-do	capture(5), nab(5), pinch(5), seize(5)
20	5	toraeru	simple	catch		capture(5), seize(5)
20	5	tsukamaeru	simple	catch		cop(5)

CLS	Scls	Japanese	V-type	English	Direct Translation	English Levin
20	5	tsukamu	simple	grasp		seize(5)
20	6	kyou.you-suru	CHI	exact	strong.request-do	extort(5)
20	6	nedaru	simple	beg		cadge(5), cop(5)
20	6	sebiru	simple	pester		cadge(5), sponge(5)
20	6	takaru	simple	bum off		sponge(5)
20	6	you.kyuu-suru	CHI	demand of/from	need.require-do	reclaim(5)

APPENDIX H. List of classes of verbs of putting and removing in Japanese

CLS	Scls	Type Name	No	FA-type linkings				GA-type linkings			GO-linking	Source or Goal		Other syntactic
				L-linking (for P)	A-linking (for R)	G-linking (for R)	FA-linking (P and R)	I-linking (for P)	RA-linking (for R)	GA-linking (P and R)		Source (P)	Goal (R)	
Verbs with specified direction														
P2	1	*ireru* 'put into'	5	OK			*	*		*	*	OK		path pattern
R2	1	*dasu* 'take out'	4		OK	?	*		*	*	*		OK	path pattern
P2	2	*ageru* 'raise'	3	OK			OK	*		*	*	OK		path pattern
R2	2	*nokeru* 'put aside'	2		OK	?	??		*	*	*		OK	path pattern
Ground incorporation														
P13		*hou.boku-suru* 'graze'	6	OK			OK	*		*	*	*		
R14		*sen.patsu-suru* 'wash hair'	2		*	*	*		*	OK	*		*	
Figure incorporation 1														
P14		*san.sui-suru* 'scatter water'	12	OK			OK (some)	*		*	OK	OK (some)		path pattern
R15		*hai.sui-suru* 'drain water'	2		OK	OK	OK		*	*	*		OK	path pattern
Figure incorporation 2														
P15		*shoku.rin-suru* 'afforest'	3	OK			*	OK		OK	OK	*		path pattern
R16		*jo.setsu-suru* 'remove snow'	23		OK	OK	OK		*	OK	*		*	

CLS	Scls	Type	No	FA-type linkings				GA-type linkings			GO-linking	Source or Goal		Other syntactic
				L-linking (for P)	A-linking (for R)	G-linking (for R)	FA-linking (P and R)	I-linking (for P)	RA-linking (for R)	GA-linking (P and R)		Source (P)	Goal (R)	
Compounds 1														
P16		*hame-komu* 'put in/on-put.into'	80	OK			*	*		*	*	OK (some)		path pattern
R17		*nuki-dasu* 'pull out'	58		OK	?	*		*	*	*		OK (some)	path pattern
Compounds 2														
P17		*nuri-tsukeru* 'smear-apply'	22	OK			*	*		*	*	*		
R18		*arai-otosu* 'wash-remove'	39		OK	OK	OK (some)		*	*	*		*	
Compounds 3														
P18		*ooi-kakusu* 'cover-hide'	2	*			*	OK		OK	*	*		
R19		*haki-kiyomeru* 'sweep-cleanse'	2		*	*	*		*	OK	*		*	

CLS	Scls	Type	No	FA-type linkings				GA-type linkings			GO-linking	Source or Goal		Other syntactic
				L-linking (for P)	A-linking (for R)	G-linking (for R)	FA-linking (P and R)	I-linking (for P)	RA-linking (for R)	GA-linking (P and R)		Source (P)	Goal (R)	
FA-type linkings														
P1		*oku* 'put'	15	OK			*	*		*	*	*		
P3		*hitasu* 'soak'	18	OK			*	*		*	*	*		
P4		*sosogu* 'pour into'	9	OK			*	*		*	*	?? (some ok)		path pattern
P5		*kabuseru* 'put on'	38	OK			*	*		*	*	*		
P6	1	*tsukeru* 'apply'	4	OK			*	*		*	*	*		
P6	2	*maku* 'scatter'	14	OK			OK (mostly)	*		*	*	OK (mostly)		path (mostly)
P7	1	*tsurusu* 'hang'	6	OK			OK	*		*	*	OK		
P7	2	*tateru* 'stand'	2	OK			OK	*		*	*	*		
P8		*tsumu* 'load'	3	OK			*	*		*	*	*		GS with *te-iru*, ??path
R1	1	*tori-nozoku* 'remove'	43		OK	depends	OK (mostly)		*	*	*		*	
R1	2	*hiku* 'subtract'	6		OK	*	*		*	*	*		*	
R6		*hagasu* 'peel'	4		OK	OK	OK		*	*	*		*	
R8	1	*nusumu* 'steal'	37		OK	OK	OK		*	*?	*		*	
R8	2	*dak.kan-suru* 'recapture'	5		OK	*	OK		*	*	*		*	
R9		*tsui.hou-suru* 'expel'	11		OK	OK	OK		*	*	*		OK	path pattern
R10		*ha.mon-suru* 'excommunicate'	8		OK	??	*		*	*	*		*	
R11		*kai.hou-suru* 'liberate'	2		OK	*	*		*	*	*		*	
R13		*kai.nin-suru* 'dismiss'	5		*	OK	OK		??	??	*		*	

CLS	Scls	Type	No	FA-type linkings				GA-type linkings			GO-linking	Source or Goal		Other syntactic
				L-linking (for P)	A-linking (for R)	G-linking (for R)	FA-linking (P and R)	I-linking (for P)	RA-linking (for R)	GA-linking (P and R)		Source (P)	Goal (R)	
GA-type linkings														
P9		*oou* 'cover'	9	*			*	OK		OK (some)	*	*		IS-pattern
P10		*yogosu* 'dirty'	15	*			*	OK		OK	*	*		
R7	1	*arau* 'wash'	5		*	*	*		*	OK	*		*	
R7	2	*kiyomeru* 'cleanse'	5		*	*	*		*	OK	*		*	
FA-type linkings and GA-type linkings														
P11		*kazaru* 'decorate'	6	OK			*	OK		OK (some)	*	*		
P12		*tsutsumu* 'wrap'	4	OK			*	OK (RI)		*	*	*		
R3		*katazukeru* 'clear'	1		OK	OK	OK		*	OK	*		OK	path pattern
R4		*haku* 'sweep'	17		??	OK	OK		*	OK	*		*	
R5		*muku* 'peel'	22		??	OK	OK (some)		*	OK	*		*	
R12		*toku* 'relieve'	5		*	OK	*		OK	*	*		*	